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ART. I.—ANALYSIS OF TWENTY-ONE CASES OF ARTICULAR RHEUMATISM.

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I propose in this paper to give, as concisely as possible, the results of an analysis of twenty-one cases of articular rheumatism. Of this number I have histories recorded either at the bedside, or while the cases were under observation. The number is not large. It would have been considerably larger had I recorded the histories of all the cases that have fallen under my observation. The disease, however, is not of very frequent occurrence in this city, In proof of this statement, on referring to the register of the Buffalo Hospital of the Sisters of Charity, not a single case was admitted into that Institution from January to November, 1849, the inmates in the medical wards, during that period, averaging from thirty to forty daily. Nor was even a single case admitted from Dec. 1849, to May, 1850. The same is true of the period from October, 1850, to October, 1851; the daily average number of inmates being much greater than before.

The unfrequency of the disease in this region is interesting, considered in connection with the fact that the population of Buffalo embraces a very large proportion of young persons, and that the climate of this place is characterized by sudden and extreme chan-

ges of temperature. As respects climate, sudden alterations of temperature, and high winds form the most prominent features. Without being able to state the average dew point, the atmosphere is remarkably dry, notwithstanding its proximity to the Lake.

Of the twenty-one cases which I shall proceed to analyze, in seventeen the disease was, moderately or otherwise, acute, and in the remaining four cases, sub-acute.

Age.—The ages ascertained, respectively, were as follows:—1 of 15, 1 of 16, 1 of 18, 2 of 21, 2 of 22, 1 of 23, 1 of 24, 1 of 26, 1 of 28, 3 of 30, 2 of 32, 1 of 33, 1 of 40; in all, eighteen cases. Mean age, 25⅛ years,

Season.—The cases occurred in the following months:—Jan., 4 cases; Feb., 3 cases; March, 4 cases; April, 2 cases; May, 1 case; June, 1 case; August, 1 case; Oct., 3 cases; Nov., 1 case; Dec., 1 case; no cases in July or September.

Previous Health.—Of ten cases in which the facts with respect to the occurrence of previous attacks of rheumatism were ascertained, in six the patients had had the disease. One patient had had two previous attacks, and one had had several; the remaining eight had previously had the disease but once. One patient had been subject to frequent attacks of neuralgia; one had suffered long and much from spinal irritation, and two had had intermittent fever. In one instance, the disease followed close on the steps of intermittent fever; and in one, dysentery had shortly preceded it.

Mode of Attack.—The invasion was sudden in nine cases, and in four of these the attack took place in the night time. In seven cases the disease was gradually developed.

Sex.—Eighteen were males, and three were females; the greater relative liability of the male sex to rheumatism being thus illustrated.

Parts affected in combination and succession, Local symptoms.—Under this head the first points of inquiry are:—Of the different joints of the body, which are most liable to be affected in rheumatism; and in what order do the joints severally rank as respects this liability? The facts bearing on these points of inqui-

ry are as follows;—In the twenty-one cases, the knee, or knees, were affected in seventeen; the ankle joint in fifteen; the wrist in fourteen; the shoulder in eleven; the hip in nine; the elbow in eight; the phalangeal joints of the hand in six; the phalangeal joints of the foot in two, and the maxillary in one. The ligaments of the cervical vertebræ were affected in two cases; of the back in five cases; of the dorsum of the hand in one case, and of the foot in two cases.

A second point of inquiry is:—What joints were simultaneously affected at the time of the attack? Both knees were affected in four cases; both ankles in two cases. The following combinations were each (with one exception) exemplified in a single case: Both wrists; hips, knees, ankles and wrists; ankles and toes of both feet; left hip and left knee; elbow and shoulder joints; both knees and both ankles; right knee and right ankle; left hip, knee and ankle; both shoulders; left ankle and left wrist (two cases); both ankles, knees and hips.

An examination of the combinations of joints simultaneously affected is interesting with reference to the *law of parallelism*. Rheumatism is one of the *symmetrical* diseases. Common observation shows that corresponding parts on the two sides of the body are apt to be attacked at the same time. Does this occur sufficiently often, or, in other words, are the exceptions so unfrequent, that it may with propriety be regarded as a law of the disease? This question has bearings beyond simply the natural history of rheumatism. The existence of such a law is of importance in its relations to the pathology of the disease. It shows that the local manifestations of rheumatism involve, in the first place, an internal determining morbid condition; and that parts are affected, mainly or solely, in consequence of this ulterior condition, irrespective of external local causes. And, in the second place, it certainly favors the doctrine that this internal morbid condition, thus determining the situation of the local rheumatic inflammations, pertains to the blood. To suppose that there is a kind of elective affinity between the structures attacked and a morbid matter brought to them by the blood, is to account most rationally for the fact that a disease affects similarly corresponding parts of

the two symmetrical halves of the body. And in support of this hypothesis, it may undoubtedly be affirmed that most symmetrical affections, irrespective of the law of parallelism, appear to be blood diseases. It will at once occur to the mind of the reader that were we authorized to say that a well-marked law of parallelism sufficiently establishes the blood pathology of a disease, it may be applied to settle the question of the pathological character of some affections in which other evidence of their dependence on a morbid condition of the blood is wanting.

Reverting to the combinations already given, of joints simultaneously affected, in thirteen of the eighteen instances the same joints on the two sides of the body are associated. Of the five instances in which this was not the fact, the left ankle and wrist were here simultaneously affected in two; and in the remaining three instances the knee and ankle, and the hip and knee on one side were affected in combination. These are not properly exceptions to the law of parallelism; they are simply negative instances in this point of view. True, exceptions would be instances in which different joints on the two sides of the body are affected in combination. There are no such instances in the combinations already given, and we may, therefore, conclude that, thus far in the analysis, the law referred to is sustained by the majority of the instances in which different joints were attacked, simultaneously, and no positive exceptions are found. It may be remarked here, that in examining with reference to the point under analysis, it will be fair to consider instances in which corresponding joints of the upper and lower extremity are affected in combination, as certainly not deviating from, if, indeed, they are not exemplifications of a law of parallelism. The knee and elbow, the wrist and ankles, the hip and shoulders are analogues; and were, for example, the wrist on one side, and the ankle on the other side to be affected in combination, it would not form an exception to the rule of symmetry. This consideration has no reference to the facts already presented, but it may, perhaps, be applicable to those which are now to follow.

What joints were affected in combination subsequently to the date of the attack? The following are the enumerations devel-

oped by an examination of the histories with reference to the inquiry:

Parallel Joints Affected.

Both knees,	4 cases.
Both wrists,	5 "
Both shoulders,	4 "
Both elbows,	4 "
Both hips,	1 "
Both ankles,	3 "
Great toes,	1 "
Both knees and ankles,	1 "
Elbows and wrists,	2 "
Shoulders, elbows and hips,	1 "
Total,	25

Single Joints Affected.

One knee,	3 cases.
One wrist,	14 "
One shoulder,	6 "
One elbow,	3 "
One hip,	3 "
One ankle,	3 "
Total,	33

Different Joints Affected on same Side, and Joints not corresponding on the two Sides.

Right wrist, elbow and shoulder,	1 case.
Wrist and finger joints,	1 "
Finger joints of one hand,	7 "
Left ankle and right hip,	1 "
All joints of right arm and mostly all joints of left arm,	1 "
Right hip, knee and ankle,	1 "
Left wrist and left ankle,	1 "
Total,	13

The foregoing results show the number of instances in which a single joint was affected to be in the majority; next in the order

of frequency, parallel joints were affected; and in a much less number of instances different joints on the same side, or not corresponding on the two sides, were attacked in combination.

Directing attention to the evidence for or against the law of parallelism, we find in the first class of combinations the positive exemplifications of this law. In the second division, viz., in which single joints were affected, the evidence is, as has been seen, negative. We are to look in the third class for the exceptions to the law. And the exceptions are instances in which different joints on the two sides of the body, not analogues, were affected in combination. There is but one instance of that character. In that instance the left ankle and the right hip were simultaneously affected. In no instance were joints different, but analogues, affected in combination. The consideration, therefore, with reference to the latter point, which was premised, is not applicable to the facts developed by this analysis. The other instances in this division, viz: those in which different joints on the same side were affected in combination, are to be regarded in the same light as those in which single joints were affected. They are negative as respects their bearing on the law of parallelism. *In only a single instance, in all the combinations of joints simultaneously affected, both at the time of the attack, and subsequently, during the progress of the disease, in the twenty-one cases, was there a positive confliction with the law of parallelism.*

To present the facts in another aspect, the whole number of instances in which the joints were affected, in the twenty-one cases, either singly, or in the different complications, is eighty-eight. So far as the results of this analysis go, therefore, the ratio of exceptions to the law of parallelism in rheumatism, is as 1 to 88.

It is interesting to notice that certain joints are specially disposed to be affected in combination on the two sides, *e. g.* the knee, while other joints are apt to be affected singly, *e. g.* the wrist; and the joint most apt to be affected singly, viz: the wrist, is one of the least liable to be affected double.

With respect to the local symptoms, in no instance were swelling or redness present when the hip and shoulders were affected. These symptoms were generally, but not uniformly present when the knee, ankle, wrist and finger joints were the seat of the mani-

festations of the disease. Increased heat was sometimes present when the hip and shoulder joints were affected.

Heart Complications.—In fifteen cases the existence, or non-existence of heart complications, was determined. Of these fifteen cases, the heart was affected in six, and unaffected in nine. The evidences and history of heart affection in the six cases, respectively, are as follows:

Case I.—On the fifth day after my attendance commenced, and the eighth day from the date of the attack, a soft, systolic endocardiel murmur was observed. The action of the heart was not increased. The febrile movement had subsided. Some pain was felt in and below the precordia, and there was tenderness on pressure in the same situations. The patient was convalescent on the seventh day from the date of my attendance, and slowly recovered. The disease occurred in Maoch, 1852. During the subsequent winter he had a second attack of rheumatism, having never had the disease before the preceding March. He was not under my observation during the second attack. He recovered from it, but the state of the heart, and of the general health, is not known. Age of patient, 15 years.

Case II.—On the seventh day from the date of the attack, a loud and somewhat rough systolic endocardial murmur existed. At this date the patient came under my charge, and the previous existence, or non-existence, of the murmur had not been ascertained. The murmur was heard at, and above the base of the heart, not at the apex. There were no signs of enlargement. Patient had had an attack of rheumatism ten years before. Age of patient, 16 years. The case was pretty severe and protracted.

Case III.—Patient came under observation on the sixth day after the attack, and on the ninth day a soft, systolic, endocardial murmur was observed. The impulse was normal. The murmur diminished and disappeared after convalescence was established. He had slight pain in precordia on deep inspiration. The case was mild, and brief in duration. Subsequent history of patient unknown. Had not had the disease before. Age 22 years.

Case IV.—On admission into Hospital about a week after the date of the attack, he had a soft, systolic, endocardial murmur,

low in pitch, maximum of sound at the apex, the heart's impulse somewhat increased. There was pain in precordia on deep inspiration, and on acts of coughing. The abnormal impulse ceased, but the murmur continued till his discharge. The case was mild and brief. It does not appear that he had had the disease before. Age, 17 years.

CASE V.—Admitted on the ninth day of the disease, and on the twelfth day was observed a systolic endocardial murmur, the maximum between the second and third ribs, high in pitch. The area of flatness of percussion sound in precordia was increased, and there was no apex impulse. The disease was mild. Patient was convalescent on the twenty-third day. History after discharge unknown. Age, 32 years.

CASE VI.—On the sixth day from the date of the attack, a soft, systolic murmur was observed, the maximum between second and third ribs. Action of heart not increased. No precordial pain. The disease was mild. Patient was discharged on the eleventh day from the date of the attack. Endocardial murmur at the time of discharge faint. Subsequent history not known. Age, 26.

In the foregoing six cases, as will be noticed, the evidences of endocartis alone, were present in five, and of endo and pericarditis in but one.

The rheumatism was mild in all cases but one, and in the latter tolerably severe.

The endocardial murmur was produced at the mitral orifice in one case, and at the aortic orifice in four cases.

Precordial pain existed in four cases; it did not exist in one case, and in one case nothing is noted on this point. In no instance was the precordial pain severe, or prominent as a symptom.

In each case convalescence took place without leaving any consciousness, on the part of the patient, of a heart affection. In one instance the endocardial murmur disappeared, in one instance it became faint, and in the other cases it persisted without any notable change.

The maximum of the duration of the rheumatism in the cases complicated with heart affection, was twenty-six days. The next longest duration was twenty-three days; the next, twenty-one

days, and the next, twelve days. The minimum of duration was seven days. The mean duration was sixteen and two-sixths days.

Comparing the mean duration of these cases with the mean duration of all the cases, the latter, as will be presently seen, was seventeen and eight-seventeenths days. So that the mean duration of the cases with heart complication is somewhat less than the mean duration of all the cases! The duration in the facts just presented is considered to embrace the period between the date of the attack, and the date of convalescence. Calculating from the date of attack to the time of discharge, and the results in the two groups of cases are as follows: in the cases with heart complication, mean duration, twenty-six days; do., in all the cases, twenty-nine days! This shows, as in the former comparison, a shorter duration of the cases in which heart affection exists! So far as deductions from these facts are admissible, it is evident that heart complication exerts no influence to protract either convalescence, or apparent recovery from the disease.

Pain, and other Symptoms pertaining to Nervous System.—In all the cases, pain in the affected joints was more or less prominent. In some it was severe, in others slight. In several instances it is noted that more pain was experienced during the night, than in the daytime. Shooting neuralgic pains were noted in one case. Hysterical attacks, accompanied by neuralgic pains in the abdomen and chest, occurred near the time of convalescence in one case. Tenderness over the spinal column is noted in two cases.

Disorder of Digestive System.—The appetite was generally either lost or impaired, but was sometimes preserved when the disease was subacute, or moderately acute.

The tongue was usually more or less coated.

Constipation was present in the great majority of cases. Diarrhœa, occurring spontaneously in the course of the disease, is noted in one case.

Thirst was frequently present.

State of Urine and Perspirations.—The urine deposited, on cooling, the urate of ammonia in fourteen cases. In the remainder of the cases the state of the urine was not noted, or noted too

imperfectly to determine the non-existence of this deposit throughout the disease. The uratic deposit was observed to disappear in several instances, at or near the time of convalescence, and after a marked improvement in the symptoms had taken place. Its continuance after convalescence was established, or after marked improvement, is noted in a single case.

The sp. gr. taken in one case, once daily, for nine consecutive days, averaged 1.015, varying at different times from 1.012 to 1.017. In another case the sp. gr. at two observations was found to be 1.030 and 1.028.

The urine was albuminous in one case, and the histories contain information on that point in this case only.

Sweating, more or less frequently, and profuse, occurred in seventeen cases; and the absence of perspirations is not noted in the history of a single case. The sweating was slight, and persisted but for a short time in a case characterized by diarrhœa, this being the only case in which the latter symptom occurred. In this case the perspirations did not take place till after the diarrhœa had ceased.

In almost every instance in which perspirations are noted to have occurred, they were either confined to the night, or were more profuse at that time.

It does not appear that the sweating was ever followed by relief of the affection of the joints.

Pulmonary Symptoms.—The absence of pulmonary symptoms is the chief fact pertaining to this head. In two cases only is it noted that any cough and expectoration were present, and in them these symptoms were slight.

Duration.

TABLE SHOWING THE DURATION OF DISEASE IN EIGHTEEN CASES.

	No. 1.		No. 2.		No. 3.		No. 4.		No. 5.		No. 6.		No. 7.		No. 8.		No. 9.		No. 10.		No. 11.		No. 12.		No. 13.		No. 14.		No. 15.		No. 16.		No. 17.		No. 18.	
	DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS.		DAYS	
From attack to convalescence,	5		11		16		7		7		31		7		8		26		12		32		12		23		23		21		9				47	
From attack to discharge,	11				30				7		40		7		18		44		17		46		21		78						12		57	

Mean duration to convalescence, seventeen and eight-seventeenth days.

Mean duration to discharge, twenty-nine and eleven-thirteenth days.

In no instance did the disease prove fatal.

In no instance did the acute eventuate in the chronic form of the disease.

In two instances, only, did apparent convalescence take place, and a recurrence of the severity of the symptoms follow.

Causative Influences.—In the histories of fourteen cases nothing is contained relative to causation, except in two instances it is noted that the patients were free livers.

In seven cases the patients attributed the disease to exposure to cold.

In one case the patient had been exposed to over-exertion, and mental anxiety prior to the attack.

In one case the rheumatism occurred as a sequel of dyssentery; and in one case it followed intermittent fever.

Treatment.—In fifteen of the cases the treatment was mixed, *i. e.*, it consisted of different remedies. Of the remaining six cases in two the treatment consisted solely, or almost exclusively, of the nitrate of potash; in two, solely of colchicum and bleeding, and in one case the account of treatment is incomplete.

The following remedies were prescribed, severally, in the number of cases appended:

Colchicum,	3 cases.
Nitrate of Potash,	9 "
Bleeding,	2 "
Mercury,	8 "
Opium, (in form of gum, sulphate of morphia, or Dover's powder,)	14 "
Citric Acid,	5 "
Sulphate of Quinia,	7 "
Iodide of Potash,	7 "
Digitalis,	1 "
Lemon Juice,	3 "
Liquor Potassæ,	2 "
Phosphate of Ammonia,	1 "
Vesication,	Several cases.

With respect to the apparent effects of these remedies, an interrogation of the histories develops the following facts and conclusions:

Colchicum.—1. This remedy was carried to the extent of vomiting and purging, with, apparently, marked relief, but the symptoms returned in three days with more severity than before. Duration of the disease not determinable. Colchicum and bleeding were the only remedies employed in this case.

2. Colchicum was carried to vomiting and purging, with apparent relief. Colchicum and bleeding were the only remedies employed. Duration of the disease to convalescence, five, and to discharge, eleven days.

3. Twenty drops of the tincture of colchicum were given every four hours. The apparent effect does not appear from the history.

4. Colchicum was carried to vomiting and purging. No relief of symptoms. Under its operation an endocardial murmur was first discovered.

Inference.—Colchicum, carried to vomiting and purging, sometimes produces apparently marked relief, and sometimes none whatever. The relief which follows is not always permanent. Under the operation of this remedy endocarditis may become developed.

Citric Acid.—Two cases were treated exclusively with citric acid.

1. Citric acid was given in doses increased to an ounce daily. Patient admitted into hospital three weeks after the date of the attack. Had taken, before his admission, only a purgative. Convalescent in eleven days, and discharged twenty-seven days after admission.

2. Citric acid in doses increased from two drachms to an ounce daily; and on one day two ounces were taken. Patient entered third day after date of attack, having had no medicine prior to his admission. Convalescent on the twelfth day after the attack, and discharged, quite well, on the twenty-first day.

Citric acid entered somewhat into the treatment of several other cases, but it is impossible to determine what effect it may have produced on the course of the disease.

In both the cases treated with citric acid, exclusively, the duration of the disease to convalescence and discharge was less than the average duration in all the cases.

Nitrate of Potash.—One case was treated exclusively with this remedy. The patient entered two weeks after the date of the attack. He was convalescent and able to walk about twenty-three days after admission, and discharged shortly afterward.

Facts pertaining to the cases in which this remedy was employed in addition to other remedies, are as follows:

1. Symptoms relieved the day after the remedy was prescribed, but remainder of history defective.

2. Effect does not distinctly appear in the history, but it is presumed not to have been altogether satisfactory, as, after two days, the sulphate of quinia was added.

3. Continued through the disease in addition to the proto-iodide of mercury, and lemon juice. Convalescence in seven days.

4. Commenced on the fourth day in dose of two drachms daily. This constituted the treatment, with the exception of the sulphate of morphia at night, and the free use of lemonade. Patient had previously been purged with the sulphate of magnesia, and had taken the sulphate of morphia. Convalescence in seven days.

5. Entered six days after date of attack. Nitrate of potash, an ounce daily. Endocarditis developed four days after admission. He was then mercurialized. Convalescence in twenty-five days, and discharged thirty-eight days after admission.

6. Nitrate of potash an ounce daily, with calomel a grain hourly, endocarditis existing. Under this treatment daily improvement. Convalescence five days after admission, twelve days after the date of the attack.

7. Nitrate of potash and mercury continued to ptyalism. Case complicated with endocarditis. This treatment commenced on the fifth day after admission, and fourteenth day after date of attack. Previously treated with colchicum, under which endocarditis became developed. Under the use of the nitrate of potash and mercury, rapid improvement. Convalescence fourteen days after admission, and discharged in twenty-three days. This patient had a short relapse after appearing to be convalescent.

8. Twenty-four days after the date of the attack, nitrate of pot-

ash half an ounce daily. Previously had had this remedy in small doses in conjunction with colchicum. Continued in the quantity above stated for ten days. Under its use the urine became clear, and the symptoms relieved. The urine was increased in quantity. After the continuance of the remedy for ten days, the sulphate of quinia, in doses of five grains three times daily, was substituted.

Conclusions.—(*a.*) Duration of disease not always abridged by this remedy; see No. 5, in foregoing list, in which duration was considerably longer than the average.

(*b.*) In some instances relief follows the use of the remedy, and appears to be an effort of it. In other cases no decided relief follows, even when the remedy is continued for several days.

(*c.*) Endocarditis may be developed while the patient is under the use of this remedy. See case No. 5.

(*d.*) No unpleasant effects are noted, the remedy having been given, in several instances, in doses of an ounce in the twenty-four hours.

(*e.*) That the remedy possesses much power to control the disease is not apparent from the analysis of these few cases.

Bleeding.—1. Colchicum had been given, with transient relief, in this case. Four days afterward, the symptoms having returned with increased severity, bleeding was practiced, there being but moderate febrile movement, and the pulse not hard. Relief followed; but on the day but one afterward, the symptoms regained their former severity.

2. Bleeding was practiced on the evening of the second day. No improvement of the symptoms followed. On the next day colchicum carried to the extent of vomiting and purging. Relief followed this remedy. On the next day another bleeding, after which the relief become more decided. Febrile movement nearly gone, and from that date convalescence proceeded rapidly.

Summary.—In the first case, transient relief only appears to have followed the bleeding. In the second the remedy appeared to contribute to the abatement of the disease, and the relief was permanent.

Mercury.—1. The proto-iodide of mercury was given, in doses of one grain three times daily, for several days, but not carried

to ptyalism. The use of mercury was preceded by the nitrate of potash and lemon juice. The precordia was blistered. Endocardial murmur existed. Convalescence in seven days.

2. Calomel two grains, and opium two grains, every four or six hours, was continued till eight doses were taken. Then suspended on account of the existence of diarrhœa. Case accompanied by endocardial murmur.

3. Patient had taken calomel for six days, in small doses, before admission into hospital. On the fourth day after admission, the existence of endocarditis being determined, he was again placed under the use of calomel, and it was continued till ptyalism was induced. Prior to the discovery of endocarditis, after admission, the nitrate of potash had been given. Convalescence in twenty-six days, and recovery from the rheumatism after thirty-eight days.

4. Endocarditis existed in this case. Calomel given at once, in doses of one grain hourly. Also inunction with mercurial ointment, and blister to precordia. Ptyalism speedily induced. Convalescence in five days, and the patient was quite well in ten days after admission.

Had been affected with the disease for about a week prior to his admission, but had kept the bed for two days only.

5. Citric acid was the only remedy given for twelve days. Pericarditis then suspected, and calomel, in doses of a grain, with Dover's powder, given three times daily. Continued till ptyalism was induced.

Inteimittent fever supervened. Patient discharged seventy-eight days after date of attack, quite well.

6. Endocarditis determined on the fifth day after admission, and fourteenth after the date of attack. Colchicum had been the remedy employed up to the discovery of endocarditis. Calomel was then prescribed in conjunction with digitalis, squill, and Dover's powder; and a blister applied to the precordia. Mercury was carried to mild ptyalism. Convalescence on the fourteenth day after admission, and twenty-third after the date of attack. Had a brief relapse, but was shortly afterward discharged, quite well.

7. On admission, tenth day after the date of attack, calomel, one grain, with Dover's powder, ten grains, twice daily, was pre-

scribed, and continued for four days. Citric acid was also given. At the end of four days all treatment was suspended. Convalescence on the eleventh day after admission, and the twenty-third from the date of attack.

8. On admission, fourth day of disease, calomel, one grain, with Dover's powder, ten grains, was given twice daily. Under this treatment the evidences of endocarditis appeared the second day after admission, and the sixth day of the disease. Calomel, one grain, and Dover's powder, three grains, three times daily, were prescribed; a blister to precordia, and the nitrate of potash, three drachms in the twenty-four hours. Ptyalism was not induced. Convalescence on the fifth day after admission, and the ninth after date of attack. Patient discharged on the eighth day after admission, and the twelfth day after the date of the attack. Bellows sound scarcely appreciable at the time of the discharge.*

Summary.—In six of the foregoing eight cases, endocarditis was presumed to exist from the presence of the bellows murmur; and in one of the two remaining cases, pericarditis was suspected.

In all the cases in which heart complication existed, mercury was prescribed.

In four of the cases ptyalism was induced.

Endocarditis became developed in one case in which mercury had been given for six days; and in another case, in which it had been given in doses of a grain twice daily for two days.

With the exception of one case, mercury was not prescribed (save as a purgative) unless heart complication existed, or its existence was suspected.

It has been already seen that the average duration of the cases with heart complication was less than the average duration of all the cases. To what extent, if to any, this fact is due to the mercurial treatment, cannot be settled by the data embraced in the present collection of observations.

Opium.—1. Dover's powder was given with apparent relief.

2. Opium, one grain repeated in three, four, or six hours, appeared to afford marked relief of suffering.

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*It is worthy of notice that in this case, in which the physical sign of endocardial exudation diminished in a notable degree, ptyalism was not induced, and a small quantity of mercury only was given.

3. Sulphate of morphia, one-fourth of a grain, repeated every four or six hours. Apparent effect not noted.

4. Opium, and the sulphate of morphia, were given throughout the disease with apparently marked relief of suffering, but with no apparent effect on the progress of the disease.

5. Opium, with the phosphate of ammonia, constituted the chief remedy. The disease supervened on dysentery. Convalescence on tenth day, and quite well on eighteenth day.

6, 7, and 8. Dover's powder in combination with calomel.

9. Dover's powder, ten grains, and calomel, one grain, twice daily, continued for four days. No other treatment, save sol. citric acid for drink. Convalescence on the eleventh day, and discharged on the twenty-first day.

10. Dover's powder, ten grains, and calomel, one grain, twice daily, for two days. The existence of endocarditis was then determined. Afterward Dover's powder was continued in combination with mercury.

11. Sulphate of morphia, half a grain, at night. Relief of symptoms followed, but no apparent effect on the progress of the disease.

Conclusions.—Opiates afforded relief of suffering, but these cases furnish no evidence of aught beyond a palliative effect.

Endocarditis became developed in one case in which Dover's powder, ten grains, twice daily, had been continued for two days.

Sulphate of Quinia.—This remedy was given in several cases, in doses of one or two grains, repeated three or four times daily, at or near the time of convalescence. The instances in which it was given in larger doses, during the progress of disease, are as follows:

1. On the fifth day the iodide of potash was suspended, and the sulphate of quinia, twelve grains, in the twenty-four hours, substituted. It was continued in this quantity for several days, but the patient not improving so well under its use as before, the iodide of potash was resumed, and the sulphate of quinia discontinued.

2. At the tenth day of the disease, the sulphate of quinia, four grains, three times daily, was prescribed, continued for three days, and then discontinued, no apparent effect being produced.

3. Sulphate of quinia, five grains, three times daily, was given thirty-one days after the date of the attack, the treatment preceding having consisted of the nitrate of potash. The remedy was continued for ten days, and the dose increased to eight grains, three times daily. It was continued in these doses for seven days. The improvement was very gradual, and at the end of the period just named, the iodide of potash was substituted.

Conclusions.—No evidence is afforded by these few cases of the efficacy of the sulphate of quinia in controlling the morbid processes upon which rheumatism depends. The effect was wholly negative.

Iodide of Potash.—1. Six days after the date of the attack, the iodide of potash was prescribed. Commencing with twelve grains in the twenty-four hours, the quantity was increased to thirty-two grains. It was continued in the quantity last named for four days. In this period moderate improvement had taken place. The sulphate of quinia was substituted, but the patient appearing not to improve under the latter treatment, the iodide of potash was again resumed, and the sulphate of quinia discontinued. Commencing with twenty grains, the quantity was increased to sixty grains in the twenty-four hours. Under this treatment convalescence gradually took place. The patient was sufficiently restored to walk about with crutches a month after the date of the attack.

2. The iodide of potash was given during the progress of the disease, in doses of five grains, three times daily. The nitrate of potash, and the sulphate of quinia had previously been employed. The patient improved about equally under each of these remedies.

In addition to the foregoing, the iodide of potash was prescribed in two of the cases, but with what effect does not appear from the histories.

It is evident that these few observations furnish no positive evidence of a controlling efficacy in the iodide of potash.

Lemon Juice.—This was given as a remedy in three of the cases. In one case it had been given freely before the patient came under my charge. It was continued till diarrhœa occurred, and the stomach revolted against its farther use. No apparent effect on the progress of the disease was produced by it.

In the other cases it was not given in large quantity, and it was associated with other remedies, so that its effect could not be estimated.

Liquor Potassæ.—This remedy was prescribed in two of the cases. In one no apparent effect was produced; nor in the other case could any remedial influence be fairly attributed to it, the improvement taking place very slowly.

Concluding Remarks.—The results developed by the analysis of the few cases contained in this collection are of importance only as a small contribution toward the accumulation of facts by which it is to be hoped, the merits, real and relative, of the several remedies that have been noticed, may be determined. As the true point of departure for studying the effects of any, or all remedies, our science lacks here, as with reference to most other diseases, knowledge of the average duration, etc., of a series of cases in which the disease was allowed to pursue its course undisturbed by medicinal interference. This knowledge cannot be voluntarily and deliberately acquired. Facts bearing thereon can only be obtained slowly, as chance supplies them.

And, at the present moment, we cannot answer the question, what are the intrinsic tendencies of articular rheumatism as respects its continuance, its complications, and remote consequences in the organism? Were we able to answer this question by an appeal to facts, we should then have a criterion by which to estimate the favorable or unfavorable influences of different measures of treatment pursued in a series of cases. As it is, in bringing statistical information to bear on the therapeutics of the disease, we can only study the immediate apparent effects of different remedies, and institute comparisons, in this point of view, and also with reference to the duration of the disease, etc., in different series of cases treated by different methods.

So far as the few observations go which have been presented in this paper, they lead to a distrust of the efficacy of the several remedies employed, rather than tend to increase confidence in our ability to control, by means of them, the progress of the disease. Some of the remedies appear to possess more or less palliative power. This is true of colchicum, bleeding, and opium; but as

respects the duration of the disease, it was in some cases short, and in other cases protracted, under different remedies. This being so, it is, perhaps, more philosophical to attribute these differences to variations in the tendencies of the disease, in different cases, rather than to the agency of the remedies used.

It is to be observed that under the use of several remedies supposed to possess more or less remedial efficacy in this disease, the complication most to be apprehended, viz., heart affection, became developed. This was true of colchicum, the nitrate of potash, calomel, and opium.

Inasmuch as the purpose of this paper is simply to give the facts elicited by the analysis of the few cases, the histories of which I have recorded, discussion of any of the various questions which suggest themselves relating to therapeutics, as well as other branches of the subject, would be out of place.

ART. II.—UNIVERSITY CLINIQUE.—CASES AND OBSERVATIONS IN SURGERY.

BY S. D. GROSS, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISVILLE.

CASE 4.—*Urinary Calculus; Incontinence of Urine for Sixteen Months; Lithotomy; Cure.*

THE patient whom I now present to you is laboring under calculus of the bladder, attended with certain symptoms which invest the case with peculiar interest. His name is Harvey Williams. He is fifty-three years of age, a farmer by occupation, married and the father of ten children, being a resident of Newberg, Warrick county, Indiana. About two years ago he began to experience some pain in urinating, more especially during the latter stages of the process, accompanied with a burning sensation at

the neck of the bladder and along the course of the urethra. The symptoms lasted for about five months, when he was seized with complete incontinence of urine, which has lasted uninterruptedly until the present moment, a space of sixteen months. Owing to his infirmity, the man has been constantly wet and uncomfortable, and has never been able to lie down at night. His habit is to sleep in an arm-chair, with a vessel under him to receive the urine as it flows from the bladder. You will notice that he wears a short apron, the object of which is, as he informs me, to cover the penis, which, in consequence of the incessant dribbling of urine, he carries constantly on the outside of his pantaloons.

The pain in urinating, the symptom which first attracted his attention, has been gradually increasing in violence, and is frequently paroxysmal in its character; it is generally attended with griping and tenesmus, and darts about in different directions through the pelvic region, the perinæum, groins, and thighs. The recumbent posture usually affords him some relief, but the moment he gets up, sits down, or walks about, his sufferings return with their accustomed severity. Owing to the frequent straining which attends the urinary distress, there has been, for some time past, prolapsus of the bowel, which the patient says he frequently returns with his finger. He has passed a great many little calculi, varying in size from that of a hemp-seed to that of a small pea, the discharge being always attended with an increase of the local suffering, proportioned to the volume of the concretion and the sensibility of the urethra. During the early stage of his complaint, before he lost his control over the bladder, the calls to urinate were frequent and very urgent, but since the fluid has been dripping off his suffering has been less, except when his water is involuntarily forced away, as it often is, in a strong stream. Formerly the flow of urine was often interrupted as if something had suddenly blocked up the passage. The man discharges a great deal of ropy mucus and occasionally pieces of clotted blood.

Considering the amount and character of the local suffering, it is surprising what little derangement there is in the general health. Still the disease has left its impress upon the system, and

that in a marked degree. The countenance is pale and care-worn, and there is, at times, a great deal of mental depression. The pulse, however, is soft and of natural frequency, the appetite is good, and there is seldom any febrile movement. The skin and bowels act sufficiently well. The sleep is, of course, interrupted, but he has often snatches of several hours' duration, and in the day and night he generally obtains as much as men commonly do in health.

My object in bringing this man before you this morning is to show you his appearance, to describe his symptoms, and to sound him, with a view of ascertaining the real condition of his urinary organs. He has all the rational signs of urinary calculus, but to determine whether he is really laboring under this disease, it is absolutely necessary to explore his bladder; for no surgeon, who has any self-respect, or who has the slightest regard for the welfare of his patient, would think of performing so serious an operation as lithotomy without such a precaution. You should never do anything without a proper reason. To cut an individual for stone, simply because he has some of the symptoms of stone, when you are not satified of the fact from a thorough exploration of the bladder, would be the height of folly, and would justly subject you to the ridicule and contempt of your professional brethren. Unfortunately such mistakes have occasionally been committed even after the use of the sound, and that, too, by men who, from their position, ought to have known better. I am acquainted with the particulars of two cases in this city, in which lithotomy was performed by the same operator, without a calculus having been found. I would not be guilty of such an error for the whole State of Kentucky. Last summer a friend in New York wrote to me that he had just returned from London, where he had spent some time in visiting the different medical institutions. At one of the great hospitals, whither he had been attracted by the fame of its surgeons, he witnessed, one day, the operation of lithotomy; but, to his surprise, the patient, after having been upon the table for a whole hour, was untied, and carried to his bed without any stone having been found. It is hardly necessary to add that my friend went away with no very favorable impression of the operator's ability as a diagnostician.

In sounding this patient I shall place him upon his back, his

head resting upon a pillow, and his lower extremities, divested of clothing, being slightly separated from each other and raised towards the pelvis. A steel instrument, termed a sound, fashioned like a catheter, and furnished with a perfectly smooth and rather large handle, is then introduced into the bladder and moved about in different directions, so as to bring its point and curved part, if possible, in contact with the foreign body. The object is not merely to feel the stone, but, by percussing it, to elicit the peculiar metallic sound, technically denominated a *click*, so characteristic of the presence of a urniary concretion. When these two signs exist, no surgeon can, for a moment, entertain any doubt respecting the real nature of the case; they are positive, unequivocal, pathognomonic. Both these signs exist in the case before us. The moment the instrument enters the bladder it touches the stone and produces the peculiar noise adverted to. The concretion is apparently of large size, but of this we cannot be positively certain, because the instrument cannot, in consequence of the contracted and sensitive condition of the bladder, be inserted to any distance, so as to enable us to measure its volume.

In sounding there should always be a certain quantity of water in the bladder; not too little, on the one hand, lest the bladder should, by its contraction, impede the movements of the instrument, and not too much, on the other, lest the concretion be lost in the redundant fluid. On an average the quantity should not exceed five or six ounces. The proper procedure is to request the patient to hold his urine several hours before the contemplated examination, or, when this is impracticable, to inject the requisite quantity by means of the catheter and syringe. In the present case, unfortunately, the patient can neither hold his urine, nor can he, in consequence of the size and situation of the calculus, and the contracted and irritable state of the bladder, tolerate the latter operation. This, however, is to be the less regretted, because the diagnosis could not possibly be more clear and satisfactiory if we could see the stone in the bladder, or hold it in our hand.

Sounding should never be performed the moment the patient comes under our charge, especially if he has undergone a fatiguing journey. On the contrary, he should always be subjected to a sort

of preliminary treatment, consisting of rest in the horizontal posture, light diet, and purgatives, with, perhaps, the warm bath, and, in most cases, the use of soda and infusion of uva ursi and hops. The latter means are particularly indicated when there is unusual irritability of the bladder, with great pain and distress in voiding the urine. It is wonderful what prompt improvement this prescription commonly affords in a few days, in apparently the most unpromising cases of this description. In my hands it has often acted like a charm.

The treatment here mentioned has been pursued in the case of Williams for some days past, and we shall rigidly persevere in it for the present, or until there is reason to believe that he is in a condition to bear the operation necessary for his relief.

It was doubtful for several weeks whether Williams really was a fair subject for lithotomy, such was the state of his bladder and of his general health. Determined, however, to afford him the only chance that presented itself for his relief, I continued to give him daily attention, until, finding that his condition was much improved, I requested the opinion of my collegues upon the case, and as many as attended the consultation, ROGERS, PALMER, and FLINT, all concurred in the propriety of a resort to the knife. The pulse at this time was perfectly natural in point of volume and frequency, the appetite and sleep were good, and the bladder was much more patient of its contents. This was on a Thursday. The operation was now appointed for the following Saturday, but early on that day, in consequence of some misgivings about its result, the man disappeared from the Infirmary, and nothing more was heard of him for nearly three weeks, except incidentally, that he had gone home, a distance of one hundred and twenty miles, having travelled the greater part of the road on foot during very cold weather. Notwithstanding the fatigue and suffering endured during this journey, which it took him eight days to complete, the man, upon his return to Louisville, was decidedly improved in health, and in every respect in as good a condition for an operation as at the time of his unceremonious departure.

The patient being fully determined to submit to the operation, I shall now proceed to perform it, premising a few remarks upon the different steps of it.

It is not necessary to say anything here respecting the manner of securing the patient. The object of the procedure is to render him as passive as possible, and to enable the assistants, who have charge of the limbs, to expose the perinæum, as it lies upon the edge of the table, to the greatest advantage to the operator. Chloroform is next administered, and as soon as its full effects are apparent, a staff—a steel instrument, shaped like a catheter, and having a very wide and deep groove, with a long, broad and rough handle—is introduced into the bladder, and confided to an assistant standing on the left side of the patient. This assistant also takes charge of the scrotum, holding it out of the way of the operator. The staff should be as large as the urethra will readily admit; the handle should be inclined a very little towards the right side of the median line, and be held in such a manner as to form almost a right angle with the body. The curved part of the instrument should be hooked up against the arch of the pubes, otherwise there will be danger of wounding the rectum. Most lithotomists recommend the staff to be introduced before tying the patient's feet; but such a practice is, on many accounts, objectionable, and I never adopt it. The stone having been touched with the staff, to assure ourselves of its presence, the perinæum shaved, and every assistant instructed in regard to his duties, the operator, sitting upon a low chair, or resting himself, as I generally do, upon one knee, stretches the integuments of the upper part of the perinæum, and enters his knife, a long and slender scalpel, about fifteen lines above the anus, beginning at the raphé and terminating a short distance below the margin of the anus, nearly midway between this outlet and the tuberosity of the ischium, but a little nearer the latter than the former. The incision in the adult is at least three inches in length, and it embraces the skin, the cellulo-adipous substance, and the superficial fascia; its direction being obliquely downwards and outwards. Re-inserting the knife into the upper angle of the wound, the operator next divides the transverse perinæal muscle and artery, the deep-perinæal ligament, and the membranous portion of the urethra, the opening into the latter being large enough to admit the point of the fore-finger of the left hand. In the third and last stage of the proceeding, the operator divides the remainder of the mem-

branous portion of the urethra, the left lobe of the prostate gland and the neck of the bladder, in a direction obliquely downwards and outwards; care being taken to lateralize the knife properly, and to push the rectum over towards the right side with the finger as it lies in the upper part of the wound, lest this tube should be accidentally injured. The moment the bladder is incised the urine gushes out, thus apprising the surgeon of his progress, and at the same time forcing down the calculus to the neck of the organ. The staff is now withdrawn and the finger pushed on into the wound, which, if necessary, may now be dilated by the pressure of the finger, or, if deemed prudent, with a probe-pointed bistoury. In general I prefer the former, as less likely to produce hemorrhage and other mischief. Keeping the finger in the bottom of the wound, the forceps are passed over its surface into the bladder, where they are used first as a searcher, and next for grasping the calculus. Having accomplished this object, the extraction is effected very much as the head of the child in parturition; that is, in the direction of the artificial outlet, and by moving the instrument *gently* and *coaxingly* from side to side, lest undue violence be inflicted upon the parts, especially the neck of the bladder and the prostate gland. It sometimes happens that the calculus is seized in its large diameter; when this is the case, the hold must be relinquished, and the direction of the concretion changed. For want of this precaution great difficulty is sometimes experienced in this stage of the operation, and great, if not irreparable, injury inflicted upon the parts involved in the operation. If several calculi are present they are seized and extracted one after another. Fragments and small concretions are generally best removed with the scoop. Clearance having thus been effected, the bladder is freely syringed with tepid water, thrown in with some degree of force, that it may reach every part of the organ, and thus effectually wash away every particle of calcareous matter. This being done, and seeing that there is no hemorrhage, the patient is liberated from his constrained position and put in bed.

In performing the lateral operation there are several circumstances which claim particular attention, because they exert a most important influence, either for good or evil, upon the result of

the case. The wound, considered in its ensemble, will be found to resemble a truncated cone, the base of which corresponds with the surface of the perinæum, while the apex is represented by the neck of the bladder. Now the rule is, in all cases, to make the base large and the apex small; or, in other words, to have a free and dependent external opening, and a narrow internal one. By this procedure a ready outlet is afforded to the urine, at the same time that this fluid is prevented from insinuating itself round the prostate gland and neck of the bladder; an occurrence which is always followed by disastrous effects, either eventuating in sloughing of the parts or in the death of the patient. The division of the prostate gland, in its entire length, can be necessary only when the foreign body is of extraordinary dimensions, and even then it is questionable whether it would not be better to break the concretion than to subject the parts to the risk of infiltration.

Another circumstance, already incidentally mentioned, is not to use the knife too freely in dividing the deep-seated structures, but instead of this to employ the finger, with which they may often be easily torn to any extent that may be desired. This is particularly true in regard to young children, in whom these structures are always more or less dilatable and lacerable. The object of this procedure is to prevent urinary infiltration and undue injury to the vessels; two circumstances so liable to happen when the parts are freely divided with the knife.

I do not deem it necessary or even proper to retain a tube in the bladder, to conduct off the urine during the first few days after the opetation. The practice, which dates as far back as the time of Colot, in the early part of the last century, has been warmly advocated by several modern lithotomists, especially the late Mr. Liston, but without, as I conceive, any just reason. Indeed, so far from doing good, I think it may generally be regarded as tending to do harm, by exciting undue irritation both in the wound and the mucous membrane of the bladder, attended with pain and spasm in the neck of this organ. It is for this reason that I never employ it; and, as to the infiltraiion of urine which it is designed to prevent, I am happy to say that I have never met with it in my own practice after any operation of this kind. Nor is it necessary to tie the patient's legs together after he has been placed

in bed; on the contrary, I always permit him to adopt whatever posture he may choose or find most agreeable.

There is sometimes considerable hemorrhage after this operation, and the blood, as you may suppose, may proceed from various sources. In the case of Williams there was but little bleeding at the time of the operation; about three hours afterwards, however, I was requested to visit him, and found a clot of blood, about the size of a small fist, between his thighs upon the draw-sheet. Upon examining the parts, with the aid of several of my young friends, the blood was seen issuing slowly from the bottom of the wound, evidently from the prostate gland and neck of the bladder, the vessels of which, especially the veins, had, doubtless, become very much enlarged under the irritation occasioned by the constant lodgment here of the calculus. Finding that no ligatures could be employed, I contented myself with introducing into the wound, as far back as possible, a piece of soft sponge, dipped in powdered alum, and in confining this firmly by means of a large compress and a T bandage. No hemorrhage showed itself after this treatment. The urine soon began to pass off by the side of the tampon, which was expelled spontaneously about sixty hours after its introduction, and, excepting some degree of abdominal tenderness, on the second day after the operation, the case went on without any untoward symptoms. The recovery, however, has been very tardy, and even now, at the end of several weeks, a considerable portion of the urine still passes through the wound, though this is, apparently, almost healed. These circumstances I ascribe to the fact that, during the first month after the operation, there was hardly any attempt at re-union, the wound being large and gaping, and the granulations pale and flabby, and all this despite the care which was taken to improve the general health by the employment of milk-punch, nutritious food and other means. About the end of this time, when the parts seemed to be doing well, there was, one day, a sudden discharge of thick, greenish-looking matter from the wound, so copious and offensive as to convince me that it must have proceeded from an abscess about the prostate gland and neck of the bladder. The flow soon ceased, and the patient did not appear to have experienced any ill effects from it in any way. During the last few weeks his im-

provement has been quite satisfactory, and there is reason to believe that the recovery, although slow, will be complete. I am induced, however, to believe, from the fact that there is occasionally a slight discharge of pus, that there may be ulceration of the mucous membrane of the bladder, or organic disease of the kidneys, and, should this conjecture be true, then all our hopes in this respect will be very likely to be disappointed.* The urine, before the operation, was generally alkaline and surcharged with thick, ropy mucus. Since the operation the mucus has greatly diminished in quantity, and instead of being alkaline it has, at times, been remarkably acid. The calculus, according to Prof. Silliman, consists, externally, of phosphate of magnesia.

Case 5.—*Calculus in the Bladder; Lithotomy; Cure.*

A week ago I performed in your presence the lateral operation of lithotomy upon a man named Williams, from the State of Indiana. I am happy to inform you that he is doing well, and that everything about the case augurs a favorable termination. To-day it is my intention to perform a similar operation upon a man from the vicinty of Madisonville, Hopkins county, Kentucky. His age is forty-three; he is married, and is the father of ten children; his habits are strictly temperate; his occupation is farming, and his name is David A. Leech. He resides in a coal region, and the water which he uses in his family is partly lime and partly free-stone. About thirteen years ago he was attacked with a severe pain in the region of the kidneys, extending down into the testicles, and accompanied by extreme nausea and vomiting. He states that he had several paroxysms of this kind in pretty rapid succession, and that he was invariably relieved by a dose of purgative medicine. A short time after these attacks he experienced some uneasiness in the neck of the bladder, which continued to within three years of the present time. It then became much more aggravated, and was attended with frequent and urgent calls to void his urine, which passed off involuntarily. The pain extends along the entire track of the urethra, and is much increased

* Since the above was written, this patient has entirely recovered.

by walking and riding on horse-back. There is a constant soreness at the neck of the bladder, and he has occasionally discharged small portions of blood and also little calculi. The general health is little, if any, impaired.

Upon sounding this patient in the latter part of October, the instrument immediately came in contact with a calculus, which, from the sensation communicated to my finger, I supposed to be considerably under the medium size. In the operation a small fragment was broken off and discharged soon afterwards. Presuming it might be practicable to crush the calculus, I requested the patient to remain perfectly quiet, to live as lightly as possible, to take an occasional purge, and to drink, four times a day, at equal intervals, a small wine glassful of uva ursi and hop tea, with about thirty grains of bicarbonate of soda in each dose. A large catheter was inserted into the bladder every day, in order to render that organ tolerant of the presence of instruments and to dilate the urethra. Some time having been spent in this manner, I introduced JACOBSON's lithotriptor, but, owing to the restlessness of the patient, growing out of his excessive irritabilty, I was obliged to desist before I could succeed in grasping the foreign body. About a week afterwards the operation was repeated with no better success. The last attempt was followed by a smart attack of cystitis, which prohibited, for the time, all further interference. Under the usual treatment the disease has gradually subsided, and the parts have sufficiently recovered to justify a resort to the knife. The operation which I shall adopt is the same as that which I performed upon Williams at our last clinique. With the nature of this operation, and the manner of executing it, the parts which are concerned in it, and the position of the patient and of the assistants, you are already familiar, and I need not, therefore, again describe them. We shall give the patient chloroform, as in the previous case, and when he is thoroughly influenced we shall proceed to our task.

The calculus, as you have no doubt noticed, was seized and extracted with great facility, its volume, which is small, having been conducive to this end. The bladder having been washed out with tepid water, thrown in with a large syringe, the patient was kept for a short time upon the table to see whether there

would be any hemorrhage. Finding that more blood issued from the wound than was proper, the edges were separated with a view of discovering its source. The greatest amount seemingly proceeded from the deep portion of the wound, as was proved by the fact that, when pressure was made, especially towards the pubes, the flow was either greatly diminished or entirely arrested. The transverse perinæal artery, althougn it did not bleed much, was ligated, as was also a branch of the posterior hemorrhoidal. Finally, a ligature was applied to the artery of the bulb, when, a soft sponge being introduced into the wound, to render "assurance doubly sure," the patient was untied and put to bed.

No secondary hemorrhage ensuing, the sponge was withdrawn at the end of the second day, and the man recovered without the slightest untoward symptoms of any kind. The only medicine which he took was an occasional laxative, and now and then a small quantity of morphia, to quiet nervous irritation. The wound, as in the case of Williams, was a little longer in healing than usual, and the urine did not begin to resume its natural channel until towards the close of the fourth week. This was, doubtless, owing, mainly, to the irritation which it had experienced from the contact of the sponge, and perhaps also to the fact that I was obliged to enlarge it somewhat in my attempt to ligate the vessels above alluded to. The urine now, at the end of six weeks and a-half, is voided entirely by the natural route, the wound in the perinæum being nearly cicatrized, and the general health excellent. The urine, tested by Prof. Silliman, is slightly alkaline, and contains a few crystals of soda. The man is able to retain it very well, and does not void it oftener than once every three or four hours. I have given the patient permission to go home next Monday. To guard against relapse, I shall request him to live upon plain, simple food, to regulate his bowels and secretions, to wear flannel next the skin, to avoid exposure to wet and cold, and to take, twice a day, about two hours after dinner and supper, in a third of a tumblerful of cistern water, thirty grains of bicarbonate of soda, to prevent the formation of flatulence and acidity in the alimentary canal.

ART. III.—A HISTORY OF SOME CASES OF DIPHTHERITIS.

BY AUGUSTUS M. AYRES, M. D., OF SALEM, MISS.

THE object of this communication is to give some description of the disease that heads this article, as it prevailed in this vicinity during the summer and fall of 1852. It was a visitation that will be long remembered by three families among whom its ravages were principally confined, and to none will it be more painful and bitter than to the writer of this article, a little sister having been one of its first victims.

The first cases occurred in the family of Mr. B., living four miles north-west of this place. I saw only one of the cases in his family, a negro boy about four years old, who was moribund when I first saw him. There were several cases in his family, about half of which died, which was the usual mortality. The next cases occurred in the family of Mr. S., living some four miles East of Mr. B, between whose families there had been no correspondence. The first case was an infant son of Mr. S., about twelve months old. I was called to see him in a few hours after he was taken, and learned from the family that he had had a chill followed by fever, they farther stated that they supposed his throat was sore, he having some difficulty in swallowing, on examining his throat I very readily recognized a patch of false membrane adhering to one of the tonsils (where it was invariably first deposited in all the cases I saw,) which by next examination had spread over the back part of the fauces in irregular patches. The inflammation soon extended into the posterior nares, producing a very abundant and exceedingly offensive discharge from the nose. His case progressed with but little variation, (shreds of false membrane coming away to be superceded by others,) for some four or five days, when his fever subsided with general amelioration of all the symptoms, and he had a very rapid recovery. It would be tedious

to enter into a full detail of the treatment that was pursued for his case from day to day. Emetics of Ipecac were given every four or five hours, in fact at every recurrence of difficulty of breathing, two or three small mercurials were given per diem, nitrate of silver was applied in substance three times per day to the inflamed membrane, and various other local applications and gargles were used, and among the rest BRETONNEAU's much vaunted muriatic acid and honey.

The next case was my little sister, who was taken in precisely the same way. Some seven or eight years old. The false membrane seemed to extend much more rapidly, reaching into the nose, giving rise to the same fœtid serous discharge, and dipping, in the space of twenty-four hours, into the larynx and trachea, producing croupy symptoms of the most aggravated character, soon followed by stupor and delirium from want of proper decarbonization of the blood going to the brain, then coma with failure of the circulation and death in about sixty hours from the time of her first complaining.

The third case was a very interesting boy of Mr. S., seven or eight years of age, whose case so nearly resembled the one just reported, terminating in death in about the same time, that it would be mere repetition to enter into details.

The next cases were in the family of Mr. M., about one mile East from Mr. S., whose families were in constant correspondence. He had four cases, children, two of whom died with the same formidable array of symptoms. There were six cases in one other family; three of whom died.

I only saw the disease in two adult persons, one of whom was my much esteemed friend Dr. DAVIS. In his case the disease was confined to the tonsils and fauces, and showed no disposition to extend into the larynx and trachea, it lasted in his case three or four days, being so mild as not to prevent him attending his professional duties most of the time.

I saw one well marked case of diphtheritis during the past summer, in a little boy about twelve months old. The larynx and trachea soon became involved, producing the most violent croupy symptoms, terminating in death, by asphyxia, in forty-eight hours. This is the only case that has occurred within my

knowledge during the past year. Most of the cases occurred in children under ten years of age.

Treatment.—In the mild cases very little medication was necessary, a simple mercurial cathartic with occasional cauterization of the inflamed throat with lunar caustic, was all that I found necessary. In the more malignant variety, and one of the cases I had was of this kind, all the remedies were resorted to that promised any good. I tried venesection in the second case, a stout athletic boy who had a full and bounding pulse, but before much blood had been abstracted symptoms of approaching syncope manifested themselves, and his arm was tied up; it took his system much longer than usual to recover from the syncope which made me think it at least of very doubtful propriety, and I did not resort to it in any other cases. It did not seem to exert any controlling influence whatever, as the inflammation extended with the same rapidity afterwards as it had done before. In one other case leeches were applied externally to the throat, but without producing any benefit whatever. Mercurials were given, in all the bad cases I treated, with an unsparing hand. I did not however succeed in the first case in inducing ptyalism. In the cases in which the larynx and trachea were involved they terminated in death before its influence could be brought about. Calomel seems to be the favorite remedy of all authors who have written on the disease, and from its influence in correcting the disposition in the blood to the deposit of false membrane, it occurred to me to be the remedy upon which most reliance could be placed. Most of the cases bore it well in pretty large and frequently repeated doses, but in cases terminating in croup they died before its specific influence could be induced. Emetics were resorted to in a few of the cases with a view to the detachment and expulsion of the false membrane, and frequently seemed to render good service. As to the exterior local treatment, various rubefacients, blisters, and stimulating poultices were resorted to but without effecting much good. The most important remedies, as I believe, are those which are applied directly to the inflamed parts, and of these I think nitrate of silver, either in substance or strong solution is preëminent; my usual custom was to apply it over the whole extent of the inflamed throat in view, three times per day. Powdered alum, borax, sulph.

copper, and muriatic acid diluted with honey, according to the method of Bretonneau, were all tried but none of them seemed to answer so well as the nitrate of silver; every application of it was followed by a considerably increased discharge from the parts to which it was applied, thus relieving the engorgement of the blood vessels and frequently promoting the detachment of large portions of false membrane to the great relief of the patient. In all the cases whenever the circulation showed a disposition to give way, stimulants such as carbonate of ammonia, brandy, quinine and the like were resorted to. Most of the cases were seen by Drs. Davis, Wiley and Whittier, none of whom had seen the disease before. I regard it when complicated with croup as the most formidable disease I have ever witnessed, not having seen one recover after the occurrence of this complication. In giving this very imperfect sketch of Diphtheritis it is with the hope of eliciting an article from some one who may be able to give a more successful mode of treatment than I, from my limited experience, have given, and if I succeed in this my highest anticipations will be realized.

Review.

Art. IV.—BIBLIOGRAPHICAL NOTICES.

History of the Epidemic Yellow Fever at New Orleans, La., in 1853, by E. D. Fenner, M. D.

Tableau of the Yellow Fever of 1853, *with Topographical, Chronological and Historical Sketches of the Epidemics of New Orleans, since their origin in* 1796, *illustrative of the Quarantine Question*, by Bennet Dowler, M. D.

Such are the titles of two very interesting papers, a synopsis of which we have thought might be acceptable to the readers of our Journal.

Dr. FENNER is an earnest and honest worker; his past and present labors clearly prove this; he not only works himself, but induces his professional friends, within the extensive range of his influence, to work with and for him. The paper now under consideration, is a plain and unostentatious narrative of the facts and circumstances attending the epidemic of 1853; these facts and circumstances have evidently been collected with uncommon care and industry, and are set forth with a simplicity, candor and force well calculated to make an effective impression upon both the professional and general reader. Such is the purpose of Dr. FENNER. The Quarantine question seems yet to be a mooted one with the people, and to some extent with the profession of New Orleans; the history of Dr. FENNER, though altogether truthful and impartial, is strongly opposed to all quarantine regulations, and is so fashioned as to lead to a like conviction in the minds of his readers.

The *Tableau* of Dr. DOWLER is a more elaborate production, more ambitious in style, more ostentatious of learning, evidently designed by its marginal index as a work of reference for future historians and students of Yellow Fever, not limited to the epidemic of 1853, but sketching all the epidemics which have visited New Orleans since 1796, and epidemics generally; it is equally hostile with the paper of Dr. FENNER, to all quarantine regulations, which are vigorously assailed by the triple battery of fact, reasoning and ridicule.

After some very just prefatory remarks upon the culpable indifference manifested by the people and city authorities of New Orleans, in regard to the local conditions favoring the development of Yellow Fever, during the existence of an epidemic influence, the history of Dr. FENNER is arranged into a number of separate parts, which in the aggregate comprehend the entire subject.

The first division has reference to the meteorology of New Orleans, a branch of the subject of great interest in the estimation of many, in regard to the etiology of Yellow Fever. Dr. FENNER procured his meteorological tables from the register of Dr. E. H. BARTON, a member of the Sanitary Commission and very accurate in his observations; these extend through all the months of 1853

up to October. The calculations are given in detail, and lead to the following general conclusions on the part of Dr. FENNER.

"The winter was quite cool and dry, but without any very cold weather. I did not see ice in the open gutters of the city, nor was the ground frozen in the heart of the city."

"The spring was quite variable; alternately hot and cold, and rather dry. Vegetation *remarkably backward*. From the 12th to the 20th of May, the days were *very hot*, whilst the nights were so cold as to render one or two blankets necessary to comfort. The thermometer rose to 88° which is within 1° of the highest point in July. On the 21st there was a sudden change, the weather becoming quite cold. This continued for two or three days; and it was about this time, as well as I have been able to ascertain, that the few cases of Yellow Fever appeared in the city."

"The summer was hot, though not unusually so. It will be seen that the *average* of the thermometer was above 79°, which some contend is necessary for the prevalence of yellow fever as an epidemic. The summer was likewise *quite wet*, though not as much so as others in which there was not so much Yellow Fever."

The meteorological tableau of Dr. DOWLER contains some very remarkable facts interesting to those who recognize a high temperature as one of the most important of the appreciable conditions of yellow fever.

"The most remarkable feature in the weather of the summer of 1853 is that of the diminished heat in the whole tier of Southern States bordering on the Gulf of Mexico, in which yellow fever prevailed, compared with the Western, Middle and North-eastern portions of the Republic. L. BLODGET, Esq., in charge of the Meteorological Department of the Smithsonian Institution, in an able paper, 'on the climatic conditions of the summer of 1853, most directly affecting its sanitary character,' an official report for June, July and August, from ninety meteorological stations from Canada to Florida and Texas, shows that in the fourth week of June, the maximum heat from New York to Savannah, gave an average of 95°. Now the corresponding week in New Orleans gave, according to Lillie's tables for the corresponding week, only 92° as the mean maximum, and throughout the whole epidemic, the average, never for any week, equaled that of the above mentioned central zone, where no yellow fever appeared. The average maximum temperature of the week ending August 26th, in New Orleans, was 91°, while the mortality was the greatest, amounting to 1.667, or more than 238, as the average per day, the temperature averaging one degree more than that of the week ending Sep.

tember the 15th, during which the mortality was only 411, averaging less than 59 per day. The average maximum temperature of the week ending October the 22d was 82°, two degrees more than that of the preceding week, though the number of deaths did not differ more than three for that period."

"It was not until June that the yellow fever showed itself even in the sporadic form to any considerable degree—the week ending on the 30th of the month, gave as the average of maxima 92° in New Orleans. Now, Mr. BLODGET's tables will show that on and about the day aforesaid, the maxima temperatures were as follows at the places indicated where yellow fever did not show itself:—Alexandria, Virginia, 95°; Knoxville, Tennessee, 94.4°; Oberlin, Ohio, 95°, 17th 97°; Baltimore, 92.3°, 22nd 96.2°; Camden, South Carolina, 97.6°; Sparta, Georgia, 97°; Eutaw, Alabama, 101°, (the day before 104°); Lebanon, Tennessee, 95.90°; New Harmony, Indiana, 28th, 97.5°; Bloomfield, New York, 21st, 95.5°; Philadelphia, 95°, 20th, 97°; Brooklyn, Michigan, 21st, 97°; Pouthney, Iowa, 20th, 97°. On the other hand, many Southern towns were comparatively cool—those which escaped, as well as those which suffered from yellow fever. Jacksonville, Florida, on the last day of June, 84°, Pensacola, 85°. Again, compare the 15th of August,—Smithsonian Institution, 91°, (the 14th 64°,); Alexandria, Virginia, 82.3°; Culloden, Georgia, 82.40°; Austin, Texas, 82°. This period, including the preceding two weeks and the week succeeding, was the hottest part of the season in New Orleans, the maximum ranging from 93° to 94°, being much greater than that which attended the invasion of the epidemic. The week ending the 28th of July, gave an average of 87°, although the mortality at that time, from yellow fever, fell but little short of 1400 during the month."

"If we compare the summer heat, (June, July and August,) of the yellow fever zone, with Northern latitudes, where yellow fever did not appear, it will be found that even the mean temperatures of the entire hot season correspond very nearly in many instances; the mean of New Harmony, Indiana, for June, 78.3°, nearly the same as Pensacola, which is 80°; Baltimore, 77.7°; Savannah, 79°; Lebanon, Ky., 79.5°; Camden, S. C., 79.3°; Danville, Ky., 79.3°; Mount Vernon, Ohio, 78.9°, agreeing within an inconsiderable fraction with Cedar Keys, Talahassee, Pensacola, and Jacksonville, (78.9°) in Florida, and Eutaw, Ala., Austin, Texas, and other places."

"The quantity of rain which fell in New Orleans in July, August and September, amounted to 16.81 inches, nearly two-thirds of which fell in July, which is usually the most rainy month in New Orleans, nearly one-third fell in the next month, leaving but the fraction of an inch for the latter, which, with the month of October, is the dryest season of the year."

"On comparing July and August, the two great epidemic months in New Orleans in 1853, it will be seen that there was nothing peculiar—nothing that can account for the epidemic in regard to the quantity of rain, which was in some places greater or less than in regions free from the fever, and sometimes similar. In these two months there fell 16.81 inches of rain in New Orleans; at West Point, N. Y., 18.28; at Richmond, Mass., 14.235; at Montreal, 10.191; at Philadelphia, 9.37; at Richmond, Va., 8.63; at Ann Harbor, Michigan, 5.06; at Bedford, Pa., 3.877; at Sananuah, 14.682; at Jacksonville, Florida, 10.1; at Pensacola, 4.078; at Cedar Keys, Florida, 15.1; Eutaw, Alabama, 14.739, &c."

From these facts, in regard to which Drs. FENNER and DOWLER for the most part concur, it will be seen that there was nothing very peculiar in the meteorological condition of New Orleans explanatory of the epidemic of 1853, nothing certainly to account for its unusual malignity; the cause of both must be sought in other and possibly more obscure conditions. While Dr. FENNER states in general terms that the season was a hot one, he also states that it was not distinguished by this feature from other seasons which were exempt from epidemic yellow fever. From Dr. DOWLER we learn that instead of excessive temperature, the most remarkable characteristic of the season was the *diminished* heat in all the Southern States bordering on the Gulf, in which the yellow fever prevailed.

From both historians we learn that there was nothing notable in the amount of rain; neither an excess nor a deficiency; nothing which had not been observed during seasons when yellow fever did not appear. Dr. DOWLER dwells somewhat specially, and in detail, upon this point, for the reason that "writers often most pertinaciously argue that yellow fever is owing to rain, when a rainy season and an epidemic happen together, as in 1839, when during an epidemic, it rained almost every afternoon for nearly two months. On the other hand, when an unusual drought and a severe epidemic prevailed in 1837, it was argued in like manner, that the absence of rain for a like period, (with the exception of a few showers) was the source of the evil."

The second division of Dr. FENNER's history is devoted to the sanitary condition of the city. According to Dr. FENNER, when the yellow fever appeared in New Orleans in 1853, the sanitary

condition of all parts of the city was worse than he had ever known it to be; this statement is founded upon personal observation and is substantiated by the testimony of the different newspapers of the day, which earnestly invoked the attention of the public authorities and of the citizens to the subject. Dr. FENNER remarks, "that when this pestilence broke out, the condition of the city in respect to *cleanliness* was so bad as to be an object of public notoriety. Indeed, it was in such a state, that if it had given rise to Egyptian Plague instead of yellow fever, it should not have surprised any one. The only surprising thing is, that with so much filth of all kinds as is always to be found in this city, we do not have an epidemic every year. The fact that *we do not*, has even led to the public expression of the strange opinion that the public filth of the city, instead of *originating* yellow fever, absolutely *protects* us from it in no small degree."

Dr. FENNER has long been a most efficient advocate of sanitary reform in New Orleans; he considers the bad sanitary condition of the city, as one of the most powerful of the localizing causes of the various forms of fever more or less constantly prevailing there; he confidently anticipates a very great mitigation of all of them, and possibly the extermination of some of them, by an efficient system of sanitary measures. In reference to yellow fever he says, "time was when this disease was unknown here. From the best information I can obtain, New Orleans was in existence *three-quarters of a century* before the first epidemic of this disease prevailed here, and it is only within the present year that it has prevailed over the large plantations within sight of the city. Is it not possible to restore the sanitary condition that existed before this disease prevailed here? Many cities and towns have been severely scourged by yellow fever for successive years, but finally got rid of it."

In connection with his strictures upon the bad sanitary condition of New Orleans, Dr. FENNER takes occasion to administer a just rebuke to the editors of the daily journals, who, for the purpose of temporarily promoting the commercial interests of the city, studiously endeavor to conceal or suppress the true state of the health of the place, and thus induce many persons to remain until they are exposed to imminent danger for want of correct information.

Dr. FENNER comments more particularly upon the condition of streets, alleys and vacant lots, the exterior and more palpable sanitary defects of the city. Dr. DOWLER, in his Sanitary Tableau, while concurring with Dr. FENNER in regard to these, is more special in his condemnation of the style of building in New Orleans; how this "has so long escaped the legislator, the grand jury, the landlord and the sanitarian, is marvellous. About ninety in every hundred houses, even in the richer portion of the city, are constructed in a manner that must be condemned in any climate, but in none so much as in this city, depressed as it is below the high water mark of the river everywhere, and in the rear, nearly on the sea level. The lower floor, which rots about four times in ten years, in a great majority of the houses, especially the stores, rests on the humid soil, sometimes at a lower level than the streets, no air being admitted underneath."

"Physicians in visiting the poor, especially in depressed portions of the city, must have often found the flooring of houses floating, and sometimes, after rains, quite covered with a water too filthy and offensive for description—laboratories for generating carbonic and other deadly gases, predisposing to disease and rendering recovery from any kind of sickness tedious, too often impossible."

In this connection, Dr. DOWLER offers some advisory suggestions as to the best method of draining the city; he considers "effectual underground drainage scarcely a physical possibility in New Orleans—if possible, the expense could hardly be paid by the treasury of the United States, and if accomplished it would prove to be an intolerable nuisance." The position of New Orleans is such as not to afford soil elevation and descent sufficient for the successful working of subterranean sewers. "One heavy rain in New Orleans would change this abstract theory into a concrete mass of filth, which would fill these subterranean canals, which, lying as they must, below the level of the river, and even below the level of the sea and lake, would send forth emanations, strong, but not wholesome."

According to Dr. DOWLER, the only feasible mode of draining New Orleans is by a well-devised plan of surface drainage; he thinks that "by adopting the experimental instead of the verbal

or paper method of drainage, and using a moderate amount of common sense, much digging, and a good deal of capital, just as the Dutch have done in Holland, by which the land has been wrested from the dominion of the sea, New Orleans and its environs as far as Lake Pontchartrain, might be changed from mosquito lands and putrifying sheets of water, to horticultural, pasturage and meadow lands." Dr. Dowler prefers surface to underground drainage for all cities; while the position of New Orleans forbids the successful application of any other system, the object aimed at is more likely to be efficiently accomplished by surface drainage, even in those cities whose position is altogether favorable to underground drainage. "A gentlemen recently from Paris, and perhaps, the ablest quarantinist in New Orleans, informs me that in Paris underground drainage, with soil, elevation and declivity so vastly superior to New Orleans for this purpose, is mischievous. The Parisians find that the filth of the city accumulates in these subterranean sewers so as to send forth the most offensive and deleterious emanations. Hence, they prefer, after costly experiments, surface drainage, and wash off the filth into the Seine." The experience of many other cities accords with that of Paris; the whole argument in favor of surface drainage is briefly stated by the gentleman from Paris.

The commencement of the epidemic is dated by Dr. Fenner as early as the 23d of May; he observed the first case of *black vomit* on the 28th of May, in the wards of the Charity Hospital. This date is much earlier than that of other epidemics which have visited New Orleans.

The first cases were among the crew of the ship "Augusta," a vessel which arrived on the 17th of May, *direct from Bremen.* The fact that the disease originated among the shipping was calculated to suggest the suspicion that it was imported *from abroad*, and to the elucidation of this very important point, important in reference to future action upon quarantine measures, Dr. Fenner addressed himself with great patience and industry. He at once commenced a scrutinizing investigation, knowing how important it was to ascertain then all the facts and circumstances, and not to trust to a doubtful search for them after the lapse of even a few months. He learned that the "Augusta" was out from Bremen

fifty-two days, and passed on the South of Cuba, not approaching nearer than thirty-five or forty miles of that island. She brought over two hundred and thirty European emigrants, who enjoyed good health on the voyage, having only lost two children of diarrhœa. The emigrants remained but one day in New Orleans, and then proceeded up to the West.

The "Camboden Castle," direct from Kingston, Jamaica, where the yellow fever was prevailing, was towed up from the mouth of the river in company with the "Augusta." At Kingston the "Camboden Castle" lost her captain with delerium tremens, and seven of her crew with yellow fever. *Not a single case of yellow fever* occurred on her during her passage from Kingston to New Orleans, nor while she remained in this latter port, up to the 8th of June. This fact is interesting as bearing upon the possibility that the cases upon the "Augusta" might have been due to the free communication which took place between these vessels from the Balize to New Orleans; the entire exemption of the "Camboden Castle" from yellow fever, however, precludes this supposition.

The first case of yellow fever observed by Dr. Fenner, the one already referred to, was a passenger on the ship "Northampton," which arrived on the 10th of May, from Liverpool, passing fifty miles to the north of Cuba. This case left the ship upon her arrival, with the other passengers, and was not attacked until the 23d. The captain states that during his entire stay in New Orleans he had but one case of fever on board his ship, and that was a boy who was attacked on the 10th of June and recovered. After sailing on the 14th of June, the mate and captain were seized with the fever. All the facts of these cases and particularly of the first, are opposed to the supposition that the fever was imported by the "Northampton," or originated in any cause connected with that ship.

A number of other vessels are cited by Dr. Fenner, upon which or in the vicinity of which, cases of yellow fever occurred, but in every instance, he ascertained very clearly that they were free from this form of disease before their arrival, and that most of them were from ports in which yellow fever did not exist.

The most searching and important inquiry satisfied Dr. Fenner that the importation of the disease, by any of these vessels, was

not true; he remarks, "it is often referred to as *a fact* that the first cases of yellow fever in this city *always occur among the shipping*. This is *not true*, as I have shown in my previous accounts of yellow fever in this city. In short, it is evident from the facts within my knowledge that the *shipping* has suffered much worse than the city from the contact."

From the shipping, Dr. FENNER extended his investigations to other localities in which the earlier cases occurred. By a comparison of dates, he found that the disease sprung up almost at the same time, in no less than *ten different places*, and these wholly disconnected with each other, and most of them so far removed from the vessels in which the very first cases occurred, as to forbid the supposition of intercommunication. "The localities designated, circumscribe *almost the entire outskirts of the city*, at the same time *dipping pretty far in*. Now, if any one can trace any sort of connection or communication between the first cases of the disease as they appeared in the different localities I have pointed out, or any thing like the *gradual* spread of an *imported contagion or infection from one or more points to the region around*, I can only say, it is more than I have been able, satisfactorily, to do."

It was currently reported that the yellow fever of 1853 was imported into New Orleans by vessels from Rio Janeiro. Dr. FENNER ascertained from unquestionable and authoritative sources that "nearly all the vessels that arrived from Rio, after the 1st of April, had suffered more or less from yellow fever, after leaving that port, but that *none of them had brought cases to New Orleans*." Special mention is made of a number of these vessels, some of which arrived *long after* the disease had appeared in New Orleans. The ship "Adelaide" was reported to have brought the first cases; "upon careful inquiry," reports Dr. FENNER, "I find that this ship has not been here this year at all." The ship "Evangeline," against which the same accusation was made, did not arrive until the 10th of June, after a number of cases are known to have occurred. It is a singular circumstance that the people of Rio reciprocate the charge and allege that the fever was introduced among them by a vessel from Philadelphia. A writer in the New York Commercial Advertiser, in an account of the yellow fever at Rio

Janeiro, says that "the same fever pervaded the whole Brazilian coast in 1850. At Bahia, it was traced to a vessel from New Orleans, and believed by many to have been imported in her. With equal propriety it might have been said to have been imported into Rio from Philadelphia. Both would be absurdities, as the vessels left the United States in the winter season, and never had any sickness on board, until after their arrival." Dr. FENNER has clearly and fairly made out the same case in regard to the supposed introduction of the fever, by vessels arriving in New Orleans in 1853.

A fact of great interest, in its sanitary relations, is established by Dr. FENNER's inquiries into the localities in which yellow fever first most extensively and severely prevailed. He remarks, that "it is worthy of particular notice that the *epidemic provailed in the unpaved, and of course, least improved parts of the city all around, long before it did in the central and best improved parts.*" "I am not prepared," he further observes, "to maintain that the putrifying filth which is to be found to a great extent in this city at all times, is *the sole cause* of yellow fever; for if it were, we should certainly have an epidemic every year; but I do believe it is almost a *sine qua non*, and that if it were effectually removed, and the whole city well paved, it would effect more towards *the prevention* of yellow fever here than any thing that can be devised."

In the disposition manifested so constantly by yellow fever to display itself primarily and most severely in the outskirts and unimproved portions of a city, we perceive a strong analogy to the course ordinarily pursued by intermittent and remittent fevers and other forms of disease recognized as of miasmatic origin; the favorite seats of these are precisely the same localities, and they steadily recede and ultimately fade away before the advancing improvements of a city. Dr. FENNER thinks the *fever-cause* of yellow, remittent, and intermittent fever identical in all, producing the different types by merely a modification of its intensity. "The general remote cause of all the endemic fevers seen here, which, in its most virulent or powerful state, produces an epidemic of yellow fever, gradually undergoes modification in the progress of time; it becomes less virulent or powerful, and in propor-

tion to the degree of this change, will it produce the milder types of fever. This position is illustrated by the remark of a highly intelligent practitioner of the fourth district, whom I met about the 10th of October. On being asked whether he saw much of yellow fever at that time, he replied "that he saw a good deal of fever, but he hardly knew whether it was *yellow fever* or not." I asked him how the cases looked, if they became *dangerously ill or died?* He said, "they then generally looked precisely like yellow fever." Another professional friend in the same district told me a short time afterwards that he had just been astonished at seeing a case of intermittent fever terminate in *fatal black vomit.* Such observations show that the prevailing *fever cause*, which in August produced *yellow fever* in nine-tenths of the cases that occurred, had become so much weakened in October as to produce mostly the remittent and intermittent types; yet the relationship between them was still so close, that if the latter were not promptly cured, they ultimately presented the worst features of the former."

Dr. DOWLER, in his Geographical Tableau, opposes the opinion that marsh-miasma is concerned in the causation of yellow fever, and adduces a number of pertinent illustrations afforded by the epidemic of 1853, adverse to this doctrine. On this point it may be interesting to quote rather fully from the Tableau. "As immense importance has always been attached to the topography of yellow fever, which has been generally attributed to swamp-exhalation, it will be necessary to take a closer view."

"The elevated zone called the bluffs, a broken diluvial plateau, touching the Lakes Pontchartrain and Maurepas on the South, where it is most depressed, running North between the Pearl and Mississippi rivers; the Eastern shore of the latter for hundreds of miles, with some interruptions, is overlooked by these impending terraces, which sustain forests of colossal magnolias, pines, oaks, liquidambars, &c.,—a platform which sundry learned medical writers have indicated as a secure retreat from yellow fever, although neither the past nor the present justify this theoretical view. The epidemic of 1853 raged fully as much in this region as in the most depressed plains among the vast cypress swamps and salt-water marshes of littoral Louisiana. The epidemic was most fatal in this region, from its Southern border upon the Northern shore of Lake Pontchartrain at Madisonville, Mandeville,

Louisburg and Covington, to the higher lands of Baton Rouge, Clinton, Port Hudson, Jackson, Bayou Sara, St. Francisville, Fort Adams, Natchez, Grand Gulf, Yazoo and Vicksburg, not sparing the little villages of the piny forests."

"Thus the towns of Louisiana, Alabama, and Mississippi, States elevated from twenty to four hundred feet, and more, situated on the tertiary formation, often in the pine lands, remote from swamps, being high, dry and clean, suffered more, in many instances, than New Orleans situated, as it is, upon the recent alluvium or newer pliocene, touching the river in front and dipping into the stagnant swamps of the cypress basin in the rear, and intersected everywhere with filthy gutters, sewers, ditches or canals. The elevated zone of pine woods in Northern Louisiana, and elsewhere in the adjoining States, forms a striking contrast to the depressed plains, cypress basins, and marshes of the Southern delta. The epidemic of 1853, like previous ones, goes to prove that marsh miasma is not the specific cause of yellow fever, as is generally supposed. The very towns which the lamented Drake recently designated, on theoretical grounds, as safe retreats from yellow fever, have suffered most from it."

After citing a number of towns in which yellow fever appeared in 1853, some in elevated and some in depressed situations, Dr. Dowler concludes his topographical sketch with the deduction "that it is evident that *altitude* did not modify the epidemic of 1853. The general opinion that yellow fever appears only in depressed places, or marshy plains, is contradicted by innumerable facts in America and Europe."

Dr. Dowler, whilst denying to marsh miasma the position of a generating cause of yellow fever, offers no substitute; he thinks that the present state of medical science cannot offer any satisfactory explanation of the "*Ens Epidemicum.*" "A humiliating but true confession this. Heat, rain, moisture, swamps, *vegeto-animal* decomposition, contagion and numerous other alleged causes are unsatisfactory and inadequate, as might be shown by travelling over hundreds of inconclusive and contradictory volumes filled with special pleadings, diluted logic, theoretical biases and irrelevant facts.

"It is most certainly the duty of every writer on yellow fever to explain the cause of it if he can, but it is equally his duty not to sin against the decalogue of logic, any more than against the decalogue of Moses. Fortunately, the *conditions* if not the *causes* of yellow fever are to a considerable extent known; for example,

it is known to be connected, no matter how, with the warm season of the year, with unacclimated constitutions, with aggregations of people in towns and villages, etc. It rarely attacks rural populations unless they crowd together so as to become virtually towns."

"A correct appreciation of these conditions is next in importance to the discovery of the cause of yellow fever—probably, the former may prove after all to be more important: for the discovery of the cause by no means warrants the conclusion that it is necessarily a removeable or a remediable one."

The yellow fever of 1853, though existing in a sporadic form for a longer time, prevailed as an epidemic only *two months.* Dr. FENNER says, "this again corresponds with the observations of the past. We have more or less yellow fever *every year*; but after a constant residence here of twelve years, I must say, that I have never known it prevail *to an epidemical extent* for a longer period than *sixty or seventy days.*"

Dr. FENNER denies the correctness of the prevalent popular opinion. "*that an epidemic can alone be extinguished by frost.*" He says that he demonstrated this error in his histories of the epidemics of 1847 and '48. "In 1847 the epidemic ceased long before the appearance of frost; yet sporadic cases were seen to a considerable extent to the end of the year. On the present occasion, the disappearance of the epidemic was published by the Board of Health on the 13th of October, whilst the *first frost* was announced on the 25th of October and that was only observed on the outskirts of the city. On the 31st there was a much heavier frost, but by this time, a large number of persons had returned to the city. It is true that some of them were attacked with the fever as before stated, but the cases were generally mild and easily managed."

Whilst the histories of Dr. FENNER prove that yellow fever often ceases to exist as an epidemic before the appearance of frost, the history of Dr. DOWLER presents several instances in which the epidemic continued to progress unmodified by the occurrence of frost. "About the 25th of October a white frost appeared, for a few nights, at many of the interior towns of Louisiana, which was received as the harbinger of returning health, but which did not, in a marked degree, arrest the march of the epidemic. Warm weather, however, soon returned, and has continued to the present

(the third week of December,) but this did not revive the epidemic in places where it had declined, as in New Orleans and in many other places." "In the town of Clinton, in the Parish of West Feliciana, lying between the Mississippi and Pearl rivers, one hundred miles Northwest from New Orleans, the epidemic began about one month before this frost, but at the latest dates, (Dec. 10) it had not yet disappeared, seventy-five having died out of three hundred and fifty or four hundred who did not fly from the town, as did about one thousand persons."

Our notice of the papers of Drs. FENNER and DOWLER has extended thus far, without comprehending more than a moiety of the valuable facts which they contain. We hope to complete our abstract in a future number. L. R.

ART. V.—VITAL STATISTICS OF KENTUCKY.

WE have before us the "First Annual Report relating to the Registry and Returns of the Births, Marriages and Deaths, in Kentucky, in 1852," and we have examined its tables with great interest. The profession is indebted for the report to Dr. SUTTON, of Georgetown, whose unwearied devotion to this subject entitles him to the thanks of every friend of medical science. The State Auditor, THOMAS S. PAGE, ESQ., the duties of whose office, it has been computed, would occupy a less efficient man twenty-three hours and forty-five minutes every day, finding that it would be impossible for him to digest and arrange the Assessor's returns in the time prescribed by law, very wisely determined to procure the services of Dr. SUTTON, under whose supervision and direction the report has been prepared. Whatever imperfections may be found in the report are chargeable to the Assessors, some of whom were far from being careful in making out their returns, and among

these, we are sorry to say, is the officer who prepared the schedule for the populous county of Jefferson. But the system is new in Kentucky, and it was not to be expected that it would work perfectly at the start, both physicians and public officers requiring time to become familiar with their respective duties. We have said that the deficiencies in this report are due to the Assessors, but we are not sure that we should not have been nearer the truth if we had taken the chief blame to the members of our profession. As it is, Dr. SUTTON believes "the returns are more full than those produced by any State heretofore at the commencement," and we are quite confident they will be more so in future.

The population of Kentucky in 1850 was very nearly a million; in 1852 the births amounted to 25,907, the deaths to 13,848, being an excess of births over deaths of 12,058. The mortality as distributed over the several months of the year was least in February, 643, and at its height in August, when it reached 1805. It then declined through the following months. As to age, 4,982, or more than a third, died before reaching five years; between 5 and 10 years only 1,014 died, and between 10 and 15 only 700, after which the mortality began to mount up, being for the next five years, or among those from 15 to 20, over 800, and for the next ten years, 20 to 30, nearly 1500. Of persons from 40 to 50, 650 died, from 50 to 60, 551, from 60 to 70, 485, from 70 to 80, 418, over 80, 310. Twelve are reported as having passed 100, and one, a white female, as having attained 110 years.

In regard to the births, Dr. SUTTON says:—

"Of these 25,734 whose sex is stated, 13,625 were males, 12,109 females—giving the very remarkable proportion of 112.52 males to 100 females. If there is any instance upon record of so large a proportion of males in a population of a million, I do not know where it is. In every month in the year there was a majority of males. But in June this majority was only 3 in 1,891 children born, whilst in December it was 209 in 2,691 births, or 116.84 to 100.

"The excess of male births is very remarkable in both the plurality cases and in the still-born. Of 230 twins whose sex is stated, 142 are males, 88 females, or 161,36 males to 100 females. Of 785 still-born, whose sex is stated, 481 are males and 304 females, or 158.22 males to 100 females.

"No case of triplets is recorded in the whole State. One woman (colored) is reported as having borne a child at 11 years.

"The still-born certainly appear to be in large proportion—no less than 3.09 per cent. of all births. This may be so; yet there is reason to believe that it is too large, because a number of children are returned as still-born who have names. There is reason to believe that a number of assessors mistook the precise import of the terms 'alive' and 'dead,' and returned as dead those which were dead at the time of making the assessment."

Respecting the relative mortality of different counties he remarks:—

"We find the mortality much greater in some portions of the State than in others. Muhlenburg, Union, and Jefferson report the smallest mortality, viz: one in 817, 391, and 291, respectively. It must be observed, however, that the schedules from each of these counties bear very strong evidence of having been very negligently taken. Hickman, Bourbon, Hart, Oldham, and Marshall, have returned the largest mortality, varying from one death in 34.22 to one in 43.54. As might reasonably have been expected, counties have changed their position from that which they occupied in the census of 1850. Fayette, which then exhibited a mortality much larger than any other county in the State, now exhibits a mortality less than one per cent.; and Hickman, which then was less than one per cent., has now the greatest mortality, nearly three per cent."

The Causes of Death.—We quote Dr. SUTTON's recapitulation under this head:—

"In examining table X, we shall be forcibly struck by the fatality occasioned by class 1, ZYMOTICS. This gives a mortality of 56.43 per cent. of all ascertained causes of death. This class is large in all countries, but very rarely assumes the magnitude here displayed. In Massachusetts it has ranged from 27 to 38 per cent.; the average for 10 years being 30.42 per cent. This class contains diseases which it is thought can be very much guarded against by proper sanitary regulations, and therefore ought not to be permitted to produce such an awful mortality.

"At the head of the alphabetical list in this class we have *Cholera*, which is represented by a mortality of 722, or 6.94 per cent. By running the eye along the list of counties, it will be seen that this disease prevailed to any considerable effect in only a few counties. A few cases of cholera morbus are included under this head.

"Next comes *Cholera Infantum*, which twenty or thirty years ago was a great outlet of infant life. Of late years, the mortality from this cause has very much diminished; but 135 cases, or 1.30 per cent. of deaths, is ascribed to it.

"*Croup* occupies a more prominent place, having caused 461 deaths, or 4.53 per cent. of deaths.

"*Diarrhœa* occupies but little space; but *Dysentery* stands forth in bold relief—no less than 1,923, or 18.47* per cent. having died of it.

"Of *Fever*, intermittent, remittent, and continued fever, the last of which contains typhus and typhoid fevers, we may speak in a group—continued fever having produced a greater mortality than any disease, except dysentery; and if we include (what probably enough belong there) all entries under 'fever' simply, we have no less than 13.09 per cent. of deaths from all ascertained causes. Remittent fever, which includes all entries under the heads of bilious fever, congestive fever, and one of yellow fever, gives a mortality of 2.07 per cent.

"The fevers above mentioned, with cholera, cholera infantum, diarrhœa, and dysentery, constitutes the great outlet of life—affording as they do 43.27 per cent. of all deaths. It is generally admitted that these diseases are dependent upon the same causes, more or less modified; and further, that these causes are very considerably under the control of man. Why then should they not be looked to and obviated?"

ART. VI.—A TREATISE ON THE ECLECTIC SOUTHERN PRACTICE OF MEDICINE.

By J. CAM. MASSIE, M. D. Philadelphia; Thomas Cowperthwaite & Co.; pp. 716. 1854.

WHEN we saw it announced, some time ago, that Dr. MASSIE, of Texas, was engaged in the preparation of a work on "Southern Practice," we felt not a little concerned for the character of the profession. We had seen some reports of cases from the pen of this gentleman in the *New Orleans Journal of Medicine*, and had otherwise previously obtained some knowledge of his fitness

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*The per cent. of each disease was calculated before the returns from Letcher county came in. This slightly increased the per cent. of dysentery, but did not sensibly affect any other disease.

for such a task. We confess, that the idea of his putting himself forward as the exponent and representative of *Southern Medicine*, was to us a most unwelcome one. We could see in the project nothing but evil to the profession and to the public. We knew that the experience, the extended observation, the reading, and habits of mental application necessary to the execution of such a work in a useful and creditable manner, were all wanting in this writer. We expected, if he carried out his design, to see a book, made up more with the scissors than the pen, abounding in all sorts of crudities and absurdities, full of old cumbrous recipes and old exploded notions. In no respect has he disappointed us save one, and that is in making his book a good deal worse than we expected it to be. We cannot say that in regard to medical science it falls below our expectations, utterly destitute as it is of all pretensions of that sort; but the author has imposed upon it a gratuitous degradation in making its morality as bad as its science. But he has been honest in one thing; he calls his production by the right name—the "*Eclectic* Southern Practice." We rejoice that it is in a work styled "*Eclectic*," and not in a work emanating from scientific medicine, that regular *dram-drinking* is inculcated, and the young men and old men of the South are instructed in the method of committing fornication without the risk of contracting the diseases incident to promiscuous sexual intercourse. We thank Dr. Massie for calling his book by its true title, which releases us from all obligation to bestow upon it any further notice, and, what is of far greater importance, will disarm it, to a great extent, of the power to do mischief. He says he meant to make "a book which would be a valuable aid to every father of a family;" but we dare believe there are few fathers anywhere, whatever their habits, who would be willing that the eyes of their unsophisticated sons and daughters should fall upon some of his obscene pages. We trust that it will find its way into few families, and can see no reason why it should find a resting place upon the shelf of any physician. There is but one proper resting place for such a book—that *limbo of vanity* in which all the bad things and all the foolish things of the press are sure, sooner or later, to be swallowed up.

Editorial Department.

KENTUCKY STATE MEDICAL SOCIETY.

In our last number we alluded briefly to the third meeting of the Kentucky Medical Society, held at Lexington, in October, and to the fact of a deficiency in its revenues. The Secretary has furnished us with some memoranda of the meeting, and addressed to the members of the Society a circular letter, which we publish in the hope that it may cause the treasury to be replenished.

At the Lexington meeting, which took place on the 19th of October, the following reports were read;—on the *Medical Literature of Kentucky* by Dr. L. P. Yandell; on *Improvements in Surgery*, by Dr. J. B. Flint; on the *Relations of Geology and Disease*, by Dr. Robert Peter; on the *Statistics of Hernia*, by Dr. S. B. Richardson; on the *History and Mode of Management of Prisons and Penitentaries*, by Dr. W. C. Sneed; on *Medical Ethics*, by Dr. R. C. Hewitt; on *Public Hygiene*, by Dr. T. S. Bell; on *Medical Grievances in Courts of Justice*, by Dr. H. Wible; on *Epidemic Erysipelas*, by Dr. W. T. Owen; on *Vital Statistics*, by Dr. W. L. Sutton.

Objections were made to the report of Dr. Flint, on the ground that he had availed himself of the opportunity afforded by an appointment of the Society to assail certain members to whom he was unfriendly, and on motion of Dr. J. M. Duke, of Maysville, the Committee of Publication was instructed to strike out all that part of the report which related to medical ethics. This led Dr. Flint to ask permission of the Society to withdraw his report, which was granted; but at a subsequent period of the meeting, at the suggestion of the President, Dr. Gross, the vote on the resolution of Dr. Duke was reconsidered, and it was voted to request Dr. Flint to hand his paper to the publishing committee.

On the first evening of the meeting an appropriate address was delivered by Dr. W. S. Chipley, the retiring President, to an audience of gentlemen and ladies. The tone, style, and sentiments of the address were worthy of the highest officer of the Kentucky Medical Society.

Dr. G. W. Bayless, of Cincinnati, and Dr. H. Kirby, of Mississippi, were invited to take seats in the Society and to participate in its discussions.

Dr. A. Clapp, of New Albany, Dr. J. F. Smith, of New York, and Dr. M. L. Linton, of St. Louis, were elected Honorary members of the Society.

The following gentlemen were elected officers of the Society for the ensuing year:

Dr. S. D. Gross, of Louisville, *President.*
Dr. Ayres, of Lexington, *Senior Vice President.*
Dr. Chambers, of Covington, *Junior Vice President.*
Dr. W. C. Sneed, of Frankfort, *Recording Secretary.*
Dr. W. H. Miller, of Louisville, *Corresponding Secretary.*
Dr. Monroe, of Frankfort, *Librarian.*
Dr. D. D. Thomson, of Louisville, *Treasurer.*

The following gentlemen compose the Committee of Publication:—Dr. T. G. Richardson, Dr. T. S. Bell, and Dr. John Bartlett.

The following gentlemen were appointed delegates to the American Medical Association, which meets on the 1st of May, in St. Louis:—Drs. Anderson, Chew, Thomson, Evans, Pilkington, Peter, Duke, Bradford, Ewen, Mattingly, Miller, Chipley, and Darby.

Several amendments to the By-Laws of the Society were adopted, among which are the following:—that the annual meetings of the Society shall be opened with prayer; that new members shall pay the initiation fee before being entitled to vote; and that no member shall be entitled to vote who has not paid the assessment which is to be fixed at each annual meeting.

The Chairmen of the various Standing and Special Committees for the ensuing year are as follows:

STANDING COMMITTEES.

Arrangements.—Dr. Preston, of Covington.
Practical Medicine.—Dr. Chew, of Woodford.

Improvements in Pharmacy.—Dr. J. L. Smith, of Louisville.
Vital Statistics.—Dr. John Swain.
Obstetrics.—Dr. L. Powell, of Louisville.
Medical Ethics.—Dr. Mattingly, of Bardstown.
Public Hygeine.—Dr. P. B. Drake.
Epidemics.—Dr. H. M. Bullitt, of Louisville.
Surgery.—Dr. F. Polin, of Springfield.
Indigenous Botany.—Dr. Donohoff, of Louisville.
Finances.—Dr. Hewitt, of Louisville.

SPECIAL COMMITTEES.

Medical Biography.—Dr. R. J. Breckinridge, Louisville.
Suits for Malpractice.—Dr. Spillman, Harrodsburg.
Relation between Disease and Particular Geological Formations.—Dr. Peter, Lexington.
Statistics of Lithotomy and Calculous Diseases.—Dr. Gross, Lousville.
History and Mode of Management of Hospitals.—Dr. Raphael, Louisville.
Results of Surgical Operations in Malignant Diseases.—Dr. T. W. Colescott, Louisville.
Placenta Previa.—Dr. H. Miller, Louisville.
Inflammation and Ulceration of Cervix Uteri.—Dr. W. H. Miller, Louisville.
Epidemic Dysentery.—Dr. Hynes, Bardstown.
Typhoid Fever.—Dr. J. Smith, Danville.
Statistics of Remedies in Disease.—Dr. L. Rogers, Louisville.
Scarlatina.—Dr. Evans, Mercer county.
Ovariotomy.—Dr. Bradford.
Comparative value of Remedies in Tubercular Disease.—Dr. Craig.
Substitutes for Quinine.—Dr. Chambers, Covington.
Spinal Disease.—Dr. Freeman.
Insanity.—Dr. J. R. Allen, Lexington.
Physiological and Morbid Effects of Alcoholic Drinks.—Dr. J. M. Duke, Maysville.
Injuries of the Skull and Brain.—Dr. Hardin, Louisville.
Therepeutical Effects of Anthemis Cotula in Disease.—Dr. N. B. Anderson, Louisville.
Water as a Thereaputic Agent.—Dr. Darby, Lexington.

Among numerous resolutions passed, the one relating to the publication of the transactions of the society, seems likely to remain a dead letter. On motion of Dr. SPILLMAN, the Society resolved, that in future no Chairman of a Special Committee shall occupy more than an hour and a half in reading his report; and on

motion of Dr. CHAMBERS it was resolved, that the Recording Secretary be directed to notify delinquent members that their names would be erased from the books of the Society, unless they paid their dues regularly. The following resolutions were also adopted:

Whereas the benefit resulting to the public, directly and indirectly, from the action and unwearied labors of the medical profession, are so numerous and important, that physicians are entitled to the utmost consideration and respect from the public; they ought to entertain a just appreciation of professional qualifications; to make a proper distinction between true science, and the assumptions of ignorance and empiricism; to afford every facility and encouragement for the acquisition of medical education, and instead of allowing the Statute Books to exhibit the anomaly of exacting knowledge from physicians under liabilities to heavy penalties for resorting to the means of obtaining it, they are entitled to the confidence, and ought to receive the patronage of the State; Therefore be it *Resolved*, That a Committee of five be appointed whose duty it shall be to memorialize the next General Assembly in reference to the passage of a law authorizing the publication of the Transactions of the Kentucky State Medical Society, and that 500 copies be furnished annually to the President for gratuitous distribution.

Resolved, That the Secretary, at an early day, as practicable, cause to be printed 150 copies of the above preamble and resolutions, and send one to each Senator and Representative elect in the Commonwealth.

Drs. Chew, H. Miller, Sutton and Mattingly were appointed the committee.

Resolved, That a Committee be appointed by this Society whose duty it shall be to memorialize the next session of the Legislature of Kentucky, to pass a law, making it obligatory on apothecaries and druggists, and all venders of medicine of every description to place a label on every article of patent medicines and nostrums, which label shall have written or printed upon it, the name of every article which enters into its composition, and the quantity of each, written in plain English.

Drs. Chambers, Drake and Small were appointed under this resolution.

On motion of Dr. SUTTON it was *resolved*, That the nomenclature of diseases proposed by the American Medical Association be adopted by this Society.

The Society instructed the publishing committee to have printed 300 extra copies of Dr. SUTTON's report on Vital Statistics, and to request the author to furnish an abstract for the newspapers of the State.

A sumptuous and elegant entertainment was provided for the Society by the Physicians of Lexington, which was properly appreciated by the members.

The Society adjourned on the 21st, after a session of three days, to meet at Covington, on the third Wednesday of October next.

We append the letter of Dr. SNEED.

To the Members of the Kentucky State Medical Society.

GENTLEMEN,

At the last meeting of the Kentucky State Medical Society a resolution was passed making it the duty of the Secretary to present each member of the Society with a statement of the amount of his dues, with the request that the same should be forwarded at as early a day as practicable, in order that the Committee of Publication might be enabled to contract for the printing of the last transactions of the Society.

I was further directed, by the same resolution, to strike from the list all such members as failed to comply with this order. If each member will forward the amount of his dues, the Society will be able to publish, at once, the valuable papers read at the last meeting.

Very respectfully,

W. C. SNEED, *Rec. Sec.*

THE MEDICAL PROFESSION.

If we credited all that the croakers say, we should conclude that our profession, at home and abroad, is in a very bad way. The English medical journals are full of complaints—Quackery is described as being everywhere prosperous in that realm; all the desirable places are filled with bad men, and all the good men are out of place; pretenders are growing rich, while the physicians of real merit are starving. And these grumbletonians point to America as the "paradise of legitimate medicine!" Their brethren on this side of the "great waters" must be amused. Here, where the profession of medicine is becoming every day more and more degraded; where the quacks have it all their own way; where "old fogyism" is triumphant, and "young physic" neglected, slighted, ignored—this the paradise of doctors! Truly, if

these things are so, there can hardly be a worse calling than our time-honored profession. But they are not true. Things might be better than they are, but they are not half so bad as these hypochondriacs represent them to be. Quackery is prevalent and pestilent, but it is not over-riding and over-shadowing legitimate medicine. Quacks are not getting all the good fees, though they are receiving too many. Medical science was never before making so sure and rapid progress, and it is establishing itself more and more securely in the confidence of men. The medical profession never held a higher rank among human avocations than it does at the present day, and was never entitled to a higher one. We do ourselves injustice by these exaggerated accounts of the success of quackery, and these complaints about the decline of the profession. "How comes it to pass," we know it was asked a long time ago, "that no man is contented with his lot?" Perhaps it is not well that we should be contented with our present state, for then we should not improve; but on the other hand we gain nothing by these sorrowful pictures which we draw of the condition of legitimate medicine, and which must be infinitely pleasing to the "irregulars."

CARPENTER ON ALCOHOL.

Dr. Carpenter has placed himself at the head of English physiologists by his various writings, and now is entitled to take the highest rank among the advocates of temperance. The volume before us is a temperance tract, and we are quite safe in saying that no work on that prolific subject was ever written with the same ability. As an exposition of the effects of alcohol on the human system, it is complete. All the branches of the subject are fully and most ably discussed. His argument is irresistible. No one can peruse his pages without giving a prompt and entire consent to his conclusions. His work is calculated to produce great good by its array of facts, and its high scientific character, and we are persuaded that we could not render a greater service to society than by promoting its circulation. It ought to be read by every physician. The author says that upwards of two thou-

sand of his professional brethren—some of them among the most eminent in England—have signed the following certificate:—

"We, the undersigned are of opinion: 1st. That a very large proportion of human misery, including poverty, disease and crime, is induced by the use of alcoholic or fermented liquors as beverages.

"2. That the most perfect health is compatible with total abstinence from all such intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, &c., &c.

"3. That persons accustomed to such drinks may, with perfect safety, discontinue them entirely, either at once, or gradually after a short time.

"4. That total and universal abstinence from alcoholic beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness of the human race."

There are few physicians, anywhere, who would not assent to the truth of these several propositions; but what are physicians doing to enforce and disseminate such doctrines? The greatest of all the evils by which human society is afflicted is, unquestionably the immoderate use of intoxicating liquors, and of the depth and intensity of the evil no class of the community are as constant or as competent witnesses as physicians. Physicians, therefore, ought to be in the van of the temperance movement. We are proud to say that they have been the leaders of this great reform, and it affords us the most sincere satisfaction to record the name of Dr. CARPENTER as prominent among this body of philanthropists.

This book is a small one and very cheap, and temperance societies cannot more efficiently promote their cause than by diffusing its doctrines. Messrs. BLANCHARD and LEA have preferred new claims to the respect and thanks of the community by issuing it in its present form, placing it within the reach of every one.

PROFESSOR BRECKINRIDGE'S ADDRESS.

We have received from our friend, Professor R. J. BRECKINRIDGE, a copy of his valedictory address. The subject is *Medicine as a Science and an Art*, the claims of which to the respect and gratitude of men, in both its aspects, are clearly and ably set forth.

Without claiming to be perfect either as a science or an art, and, perhaps, with slender prospects of attaining to that point long before the millennium, Dr. B., nevertheless makes it evident, that it has been a precious boon to our afflicted race. The concluding thoughts of this address are just and important. It is urged upon the young men to whom it was delivered, that all depended upon themselves whether they were to be cyphers or shining lights in their profession—that to become *great* physicians was impossible, "without continuous labor, ceaseless diligence, and untiring perseverance." Nothing is more true. It is application, diligent, unwearied, persevering, that secures eminence in our profession.

THE LONDON LANCET.

"After thirty years of a career, more useful and more prosperous than any other medical journal in the world can exhibit, we may point to the remarkable, and we believe, unprecedented fact, that the Lancet is still possessed and directed by the same person that offered the first number to our brethren and to science."

This is the language of the Editor of the *London Lancet* in reviewing the labor of his hands. It is not as modest as it might be but perhaps the veteran Editor has been taught by experience that the conductor of a public journal loses nothing by self-praise. He has, moreover, not a little to felicitate himself upon in the career of his singularly successful journal. It has had a wide circulation, and exercised a beneficent influence upon the medical profession all over the world. But we see no good reason why the Editor, while sounding his own praise, should go out of his way to disparage cotemporary journals. The *Medico-Chirurgical Review* cannot be said in any true sense, to have "dragged on a painful and precarious life," nor the *British and Foreign Review*, to have had "a rapid ephemeral existence." The career of the former, under its original name, was a long and brilliant one,—as long, we believe, and certainly as brilliant and useful as that claimed by its editor for the Lancet; and it has lost nothing of spirit, dignity, or learning by its union with the former. One of the most able journals of medicine ever published in the English language, be-

yond all question, was the *British and Foreign Medical Review*, and we confess that it is not without some feeling of indignation that we see the nose of Mr. THOMAS WAKLEY, albeit an "M. P. during eighteen years for the Metropolitan Borough of Finsbury," turned up at a journal that numbers among its contributors such men as TODD, BOWMAN, CARPENTER, CHURCHILL, MARCEL, JONES, LAYCOCK, KIRKES, JENNER, WALSHE, PAGET, &c., &c. Mr. WAKLEY has not profited by the example of his immortal countryman, mine *Uncle Toby*, nor made the precious discovery, that the world is wide enough, both for his great serial and its more modest but not less worthy competitors. We, here in the backwoods of America, read them all and esteem them highly, which their editors ought to feel to be the greater compliment, seeing how many journals of our own we have to read and admire.

THE WEATHER.

The unavoidable delay in the publication of another number of our Journal, vexatious as it is, has this slight advantage, that it enables us to speak of our spring weather, which has been quite remarkable. The "uncertain glories of an April day" have been celebrated in song and have long since passed into a proverb, but we do not remember when this fickle month ever showed so much versatility as it has done in the last fortnight. The wind has been for days from the rawest quarter, cold as December, rendering the flesh as insufficient a protection as if it were thin paper, piercing to the bones, and developing every latent rheumatism and neuralgia in them; and then the soft south wind has prevailed, carrying the thermometer up to summer heat. We have had Fahrenheit's instrument marking eighty degrees one day, and the next day down to the point of freezing. Our latitude exposes us to the two extremes of temperature, the cold of the northern lakes, still bound up in ice, and the heat of tropical seas; and thus we have winter and summer alternately in quick succession according to the direction of the winds. Ships crossing from Liverpool report the appearance of an extraordinary number of icebergs on our eastern coast, encountered during their late voyages, and to these

we are doubtless to ascribe something of the raw weather which has characterized the present spring. These vast bodies of ice exert a depressing influence upon the temperature of the air along the shores near which they float; and which is felt far in the interior. Their unusual descent into our southern seas is likely to protract this unseasonable weather, and may yet bring upon us the disastrous frosts which have already visited the Southern States. Severe as the cold has been, we are happy to say that our fruits have thus far escaped, and we may be pardoned for alluding to this fact as important, being, as we are, of the number of those who hold that fruit is highly conducive to human health.

SUTTON ON CHOLERA.

Dr. GEORGE SUTTON, of Indiana, has reported to the Medical Society of that State on Cholera as it prevailed during the years 1859, 1852, inclusive, and has collected a body of facts which may be consulted with interest if that scourge should revisit us again, of which there seems to be but too much probability. It is a report of much labor, and appears to have been faithfully drawn up. Multiplied as are already the observations on that important subject, there is no danger that they will become too numerous, and all will find their place when the true theory of that strange disease comes to be expounded.

AN EXPLANATION.

Some of the proof-sheets of our last number were worked off without being submitted to our inspection, the consequence of which was an unusual number of typographical errors, and the omission of credits in our department of selections. We trust our cotemporaries will not doubt, that it is our earnest wish to do them entire justice, and that where there has been a failure to give the credits due it has arisen from the carelessness of the printer. We hope such omissions will not often occur.

NEW YORK LUNATIC ASYLUM.

We have before us the eleventh "Annual Report of the Managers of the State Lunatic Asylum of the State of New York," which shows that the results of the Institution have been no less beneficial than in any previous year of its existence. But satisfactory as were the general results it appears that sixty applications for admission were refused for want of room for their accommodation—a story repeated, from year to year, by most of the Lunatic Asylums of the States, testifying to the alarming prevalence of insanity in our country. This report goes on to say:—

"The whole number admitted since the Asylum was opened, on the 16th of January, 1843, is 3,923; of whom 1,625 have been discharged recovered, 55 much improved, 598 improved, 753 unimproved, and 446 have died.

"The number admitted during the year was 424; giving a total of 849 under treatment in the course of the year. Of this number, 169 were discharged recovered, 21 much improved, 45 improved, 129 unimproved, and 39 have died; leaving 446 remaining at the end of the year. We refer to the report of the superintendent for a full statement of the operations and results of the Asylum during the year.

"Total number of deaths 39—19 men and 20 women. The mortality has been low, being on the average number resident 9.22 per cent., and on the whole number treated 4.59 per cent. It will be perceived, from the above table, that many of those who died came to us in the last stages of serious organic disease. Of the eight deaths from phthisis, six were dying when admitted, two of them not able to sit up or speak, and were only sustained the short period of their residence by warmth and free stimulation. The seven cases reported as having died of exhaustion were wasted by disease or vicious habits. Three of them, at the development of the mania, had been purged, blistered, and profusely bled, and were brought to the asylum on beds. This injudicious treatment cannot be too strongly condemned. The recuperative powers were in these so far exhausted that no amount of care, stimulation and nutrition could arouse them. It may be proper to state that a number of persons received in a state of extreme feebleness, after long nursing, watchfulness, and free stimulation, recovered. The number of such cases received was 33. Seven of this number died, making 26 per cent. mortality in these cases.

Record of Medical Science.

On the Chemico-Physiological Effects of Coffee.—By Julius Lehman.—If we consider the results of all the investigations and experiments on this subject we must arrive at these conclusions:

1st. That the use of the decoction of coffee produces two important actions in the system, which are difficult to harmonize, viz: stimulating the vascular and nervous system to greater activity, and at the same time considerably retarding the metamorphosis.

2nd. That the stimulating effect above mentioned, so valuable to us from its reviving the wearied spirit, and disposing to thought and promoting a feeling of comfort and cheerfulness, is due to the opposing modifications of the action of empyreumatic oil and caffein.

3rd. That the retarding of the metamorphosis is mainly due to the oil—the caffein showing this, *only* when it exists in large quantities.

4th. That increased activity of the heart, trembling, dizziness, delirium, intoxication, &c., are the effects of caffein.

5th. That the increased action of the perspiratory organs, of the kidneys, of the peristaltic action, and of the brain, are the effects of the empyreumatic oil.

If the decoction be too strong, that is to say, if it is prepared in such a way as to contain too great a quantity of both substances for the system, then occur the effects peculiar to both, trembling, activity of the heart, congestion, &c., &c. If we consider these two chief actions of coffee, which are peculiar to some other substances, such as tea, cocoa, spirituous liquors, &c., though in a modified degree, we observe that they are at variance with the general law, that the greater the expenditure of mental and bodily activity, the greater the waste—or rather the metamorphosis of the system. Whether this excitement of the vascular nervous system, occasions more rapidly the destruction of the processes of life, or how these two opposing effects are to be explained, remains for the future to discover.

One who is familiar with the general law above mentioned, that

an increase or decrease of mental and bodily expenditure, is attended by a proportionate increase ot decrease of the metamorphosis, will find it difficult to comprehend the strength, busy life and good health of the poorer classes, when he considers these in connection with the very small amount of actual nourishment that they are able to obtain. And, in fact, the existence of such persons would have been inconceivable, if no means of supporting their health and strength had been provided, besides that small amount of actual nourishment. Limited to that alone, there would have been a great disproportion between the amount received and that thrown off; the tissues must have suffered a continual waste, even to the dissolution of life. But instinct has taught them to make use of a substance, which is capable of making a too scanty nourishment sufficient to the system, and by preventing in this way the otherwise unavoidable disturbances of the balances of life.

It is particularly coffee, tea, cocoa, empyreumatic oils and alcoholic liquors, that possess this peculiar influence upon the system, and most of these agree in producing that excitement of the nervous system of so great importance in social life.

If we now reflect upon the distribution of these substances, we find that one of them is used by the people as a common article of food, while the others are enjoyed by the higher classes as articles of luxury. In those countries where one or other of these substances is cultivated, its culture is considered as a matter of chief importance by the people; thus, in Arabia, coffee; in China, tea; in the wine-producing countries, wine. On the contrary, where this is not the case, the choice has fallen almost exclusively on coffee or tea. The reason why the preference is given to these, particularly in Europe, is owing principally to the fact that they exert a far less injurious influence upon the system than alcoholic drinks, and also on account of their valuable action upon the nervous system from the united effects of coffee and empyreumatic oil. For while, by stimulating the reason and imagination, these prepare man for intellectual and bodily exertion; spirituous liquors exciting only his imagination, which degenerates by slight excess into confusion of thought; cause, by irritating the nervous system, general debility. These latter, therefore, can be used with much less safety than coffee or tea.

An attentive consideration of the quality and quantity of the composition of coffee and tea, the various modes of preparing them, as well as their action upon the system in connection with the kind of food used, will probably account for the peculiar preferences of nations, for the one over the other. If the composition of tea leaves be compared with roasted coffee, we find that they both possess those substances that are of such great importance—thein, etherial oil, and protein substance. The only difference

between them is, that the coffee contains an aromatic substance, and the tea a greater amount of thein, but especially of etherial oil. Three most important effects are produced by these constituents:—1. The retarding of metamorphosis produced by the thein; but more particularly by the aromatic substance in coffee. 2. The lengthened activity of the brain, produced by the special action of thein and etherial oil. 3. Serving as an actual means of nourishment, by the amount of protein substance contained in them. Coffee influences more directly the metamorphosis, and tea the nervous system. In order to obtain completely these effects of the two drinks, they must be partaken of in substance. This occurs, however only among few nations, and is probably dependent upon the kind of food used, and their mode of life. The Orientals and Arabs regard coffee as a necessary article of food, and from their custom of drinking it with the dregs, thus making the large amount of protein substance and inorganic constituents serve as nourishment, have unconsciously rendered their very frugal diet less sensible to them. If the plastic ingredients are not of themselves sufficient, yet here comes to their assistance the indirect nourishing property of caffein and the aromatic substance—equalizing their necessities, and at the same time exciting their nervous system.

The Central Asiatic inhabitants of the Steppes, the Buratians, the Mongolians, &c., &c., make use of tea as a common article of food. They prepare it. first, by rubbing the leaves together, then boiling it in water, adding a little salt to it; after they have poured off the decoction from the dregs, they add to it butter and milk, and meal if they have any, which they roast before adding to the decoction. A person takes per day from twenty to forty cups. But even without meal, and only with a little milk, this tea often serves for weeks long, as the only means of nourishment. We see here again a people instinctively directed, as it were, in the peculiar mode of preparing tea; unconsciously adding those substances which are of such great importance, viz: the protein, that becoming soluble by boiling in salt water, and also a great portion of the inorganic constituents. It is probably here the large amount of thein that influences the metamorphosis. Of course they lose entirely the valuable property of the united action of etherial oil and thein, since by boiling, the former is dissipated. This could better be spared though than the other action of tea, which serves as a direct nourishment, which is of greater importance.

The mode of preparing these drinks among Europeans, is very different—not placing much value upon the nutritive substances contained in them, but merely upon those which are capable, indirectly, of nourishing, and those which induce greater activity of the nervous system and the [illegible]. The mode of preparing

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coffee among the Germans, enables them to obtain, besides the empyreumatic oil, as much caffein as they can possibly obtain from it; while in the preparation of tea, less attention is paid to the amount of thein, than to the etherial oil—the whole amount of which passes over to the decoction. Hence, with them, tea acts only as a stimulus to their brain and nervous system, whilst coffee retards the metamorphosis, and, also, though not in so great a degree as tea, stimulates the nerves. The English, who produce so much meat in their own country, and can generally obtain so much of it that it is even possible for the poorer classes to partake of it daily, besides the protein substances, have less need to prepare their coffee in such a manner as to obtain from it indirect nourishment. Since, however, they feel the want of spirits and excitement, their choice has fallen upon tea, which promotes these better than coffee.

We find among the poorer classes of Germany, where meat is so rare, and considered so great a luxury, that they are obliged to substitute for it such poor food as potatoes, &c., which consist of substances which indeed satisfy their hunger, but yet are not fitted to prepare them for very great exertions. The feeling of mental and physical lethargy experienced by them, and produced by this spare diet, becomes much more evident if they suffer from the want of coffee. The rapid diffusion and yearly increase of the consumption of coffee, is an evidence of the great importance it has attained in social life.

Whilst, at the beginning of the last century, it was considered a luxury by the higher classes, it has now become a necessary article to all classes, wherever food is scarce and dear. Of its total production, which amounts annually to 600,000,000 of pounds two-thirds are consumed by the Europeans, whose exertions appear so disproportioned to the actual means of nourishment. In the Zollverein States of Germany, the consumption of it amounted, in 1851, to one hundred millions of pounds, or one-sixth of the total production. Upon each reduction of duty, millions of pounds more were consumed by the people. The consumption of coffee and potatoes, from the period of their general introduction, have gone hand in hand. We see the poor instinctively valuing coffee more, the more they are limited to potatoes as their chief food.

The Substitute (Surrogate) for Coffee.—At the time of the Continental embargo, the want of coffee was felt for the first time in Germany, and the necessity of possessing some such drink, led to the adoption of other substances produced there, to which, by roasting, a taste similar to that of coffee could be imparted. Notwithstanding the general introduction of coffee again, and its greatly increased production in the colonies, and the reduction of duties, which naturally made it cheaper, the consumption of the substitute was not lessened, but increased so as yearly to amount

to 100,000 cwt. The opinion that Knapp, as well as other authors, has started, that this substitute is entirely deficient in those substances so valuable to the poorer classes, can be refuted if we examine its composition, and remove the idea that caffein is the only efficacious substance in coffee. The materials which they have chosen as substitutes, and which may be increased indefinitely, all undergo the same process as coffee, viz: roasting; by which the aromatic substance is evolved, and by which is effected that retardation of the metamorphoses of such great importance to the poorer classes. The roasting thus produces not only a taste similar to coffee, but also imparts to it one of its most important properties. Still we cannot be indifferent to the great deficiency that exists in the substitute; viz: the total absence of caffein, thus losing that valuable influence upon the vascular and nervous system and upon the brain. Since, however, surrogate is about from five to eight times cheaper than coffee, and possesses a part of the peculiar action of the latter, we cannot wonder at its having attained, among the poor, to such a general use.—*Med. Examiner.*

Method of Exhibiting the Iodide of Iron by Extemporaneous Preparation.—By Daniel F. Wright, M, D., Demonstrator of Anatomy, Memphis Medical College, Tenn.—In view of the difficulty of procuring and keeping a reliable preparation of the Iodide of Iron, I have for some time been in the habit of exhibiting that salt by extemporaneous preparation as follows:

℞. Iodinii,
Ferri Hydrogene Redacti, aa 3ss.,
Mellis, q. s.
Ext. Cinchonæ, ℈ij
Pulv. Glycyrrhizæ, q. s.
Ft. massa et in Pill, xxxij, div.

Rub the iodine and iron together till they form a fine powder; add honey enough to give the consistency of thick molasses; then rub for some time till the fumes of iodine cease to come, and the mixture assumes a greenish tinge. Rub in the extract, and add powder enough to make the mass.

Or make a mixture as follows:

℞. Iodinii,	gr.	xij.
Ferri Hydrog. Redacti,	gr.	viij.
Mellis,		3ss.
Ext. Taraxaci,		3ij.
Aq. Menthæ,		3vj.
M.		

Observe the same rule in combining the iodine and iron as in the former prescription, before the water is added.

The average dose is one of the pills or a tablespoonful of the mixture three or four times a day.

It is to be observed that the iron is given in a proportion a good deal larger than would be enough to form the iodide, as the chemical equivalent of iron, being not much more than one fourth that of iodine, gr. viij., of the former would be enough to neutralize 3ss., of the latter. I nevertheless use the quantities as given above, for two reasons; first, because the tonic effects are much increased by the addition of iron in an uncombined state; and secondly, as an effectual method of preserving the salt from decomposition by the absorption of oxygen; this process would be constantly setting iodine free, but by observing such a precaution, the free iodine is constantly taken up by the uncombined iron. For the same purpose, apothecaries have long been in the habit of keeping a mass of metallic iron (as a watch-spring) in their syrups of the iodide of iron.

The directions given for insuring the perfect combination of the elements are highly important, as otherwise the presence of free iodine would be liable to produce a corrosive action on the coats of the stomach.

One or the other of the above formulæ may be used in all cases where the tonic, alterative and diuretic effects of the iodide of iron are indicated. The dose prescribed contains very nearly a grain of the salt, and may, of course, be increased or diminished at the discretion of the physician. I have, myself, used them with considerable success in cases of secondary syphilis, where the vital and assimilative functions have been much impaired by long continued disease. I have found it especially serviceable in those cases of ascites and anasarca, which result from long continued intermittent and remittent fever; in these cases I use the second formula, substituting syr. scillæ ʒi. for the honey. The acetic in that syrup is incompatible with the iodide of iron, but, being present in only small quantities, decomposes only an inconsiderable portion of the salt, which, indeed, the uncombined iron is more than sufficient to restore.—*Am. Jour. of Pharmacy.*

MORTALITY OF ST. LOUIS.—Dr. ENGLEMANN closes an elaborate paper in the *St. Louis Medical and Surgical Journal*, on this subject with the following remarks:

"In examining these tables, it must be borne in mind that it is not only the deaths that take place among our resident population, which are recorded there, but that the number is largely increased

by the deaths occurring among the floating population, not included in the census tables, and the numerous travelers and immigrants, who not rarely arrive here in the last stage of sickness, only to people our burying places. I assume the population of the city and suburbs, in 1852, to have been 100,000, and in 1853, 110,000, which numbers however, are hardly large enough to include our floating population. The last column in the tables is based on this calculation. It results from this column, that in 1852, which was the last of our four cholera years, 48 died among 1,000, and in 1853, only 35; that from June to September, 1852, the number of deaths ranged from 4 to nearly 9 in 1,000, in one month, but that in 1853, the number never reached 4 in 1,000.

In both years the number of deaths of white females was 40, and of white males, 60 per cent., which is owing partly to the greater exposure and consequent sickness men are subjected to, but partly, also, to the absolutely much larger number of males in our community.

In 1852, the number of deaths of white chiidren of five years and under, was, in proportion, smaller than in 1853; in the former year it was 45, in the latter 53 per cent. The cause is to be found in the fact, that cholera attacked and destroyed fewer children, in proportion, than adults; we find the mortality among children in the summer months, when cholera prevailed, not to have been much more than one third of the whole number of deaths. It is further to be found in the lower degree of heat which prevailed in the summer of 1852, and in the absence of fatal infantile epidemics In 1853, on the contrary, scarlatina of a very dangerous character, was prevalent for the four or six first months, almost exclusively among children; the proportion of infantile mortality, from January to April, was 52 per cent. In the months of June, and principally August, the heat of the weather found its easiest victims among young children, and we see the proportion, accordingly, much greater—in June, July and August together almost 60 per cent.

In the statistical investigation, published in this journal, in May last, p. 227, etc., I have already attempted to show the influence of atmospherical agents on the health of the summer and fall of 1852. It now remains to bring those tables down to the end of last year, (1853,) and by them either to confirm or to modify the results arrived at.

The per centage of sickness (see May number, page 228,) I find, for July 8; for August 12, and for September 13. The per centage of mortality was, in July 10, in August 11, and in September 11. The quantity of rain in May, June and July was nearly 11 inches, and in August and September a little over 10 inches. The mean temperature of June (78 degrees,) was higher than I ever observed it in that month; that of July (75 degrees,) was

lower than the average; that of August (76 degrees,) and September (69 degrees,) is about the average temperature for both these months. These meteorological conditions would seem to indicate a sickly summer with a more healthy fall, but the low mean temperature of July evidently prevented much sickness in that month, which might have been expected from the want of humidity in that and the two preceding months. In August, we find a little more than the average sickliness, owing, no doubt, to the excessive heat of the second week of that month, (see above,) but less than the average mortality. In September sickliness as well as mortality were below the average."

THE EFFICIENCY OF SULPHURIC ACID IN DIARRHŒA.—By GOODEVE BOWRA, ESQ., M. R. C. S. E.—As much has been said and written lately on the treatment of diarrhœa, I beg to offer my testimony on the happy effects of sulphuric acid on persons of all ages, with the full conviction that it is the quickest and most palatable, consequently the best remedy for that disease.

I was requested two years ago to send medicine to a young lady subject to diarrhœa, who had taken a passage to China in a ship not carrying a surgeon. Thinking there must be some mistake, I went on board the vessel and saw the chief officer, who thought himself quite competent to treat (from books and a medicine chest) any disorder likely to arise on the voyage. On asking this gentleman what he would do in cases of diarrhœa, his off-hand reply was, "Never care for that; always carry plenty of sulphuric acid on board, and I have never known it fail."

On the same evening I was called to a lady, seventy-five years of age, very subject to these attacks, which always lasted a week or more, and as it was of great consequence she should return into the country in two days, I made up my mind to try the sulphuric acid, believing I should not be more successful with the old chalk mixture than her medical friend at home.

The following morning I found her up, and so much better, that she had only taken two doses; I gave her a third, which completely cured her. Since then I have used nothing else (save a mustard poultice) in all cases, either with or without pain, both in private practice, and an institution to which I was attached, and I confidently state that during the whole period I have used it, I have not met with one unsuccessful case. The only difficulty is, to persuade some people that acids would not increase their disorder, particularly those accustomed to the old chalk and aromatic confection treatment.

I now constantly recommend patients subject to diarrhœa, or who are nervous about cholera, to keep a bottle of the sulphuric

acid mixture in the house, and on the first symptom of their complaint instantly to take a dose, which is generally sufficient to effect a cure. Many of these patients (I fear, jokingly) tell me they shall expect double charges, as two or three draughts of the acid mixture have more effect than the same number of bottles of the chalk mixture; and I may add, I feel so satisfied with the success of a two years' trial, that I have no hesitation in asserting it as my full belief, that deaths from cholera and diarrhœa would be very materially diminished if the authorities would appoint an agent in all poor neighborhoods, to give a dose of the sulphuric acid mixture to every necessitous applicant suffering from bowel complaint. They would have plenty of persons desirous of availing themselves of this remedy, if I may judge from the gallons I gave away last summer.—*Lancet.*

Recurrence of Dysentery.—Dr. A. F. Jetter, of Palmyra, Mo., has not found, with Dr. Flint, that second attacks of Dysentery are things of rare occurrence. He thus writes in the *St. Louis Medical and Surgical Journal:*

"In 1846, I was the subject of an attack of dysentery, and judging from the amount of pain attendant, thought it a severe case. In 1847, however, I had an attack more violent and protracted than the one of the former year. Since that season I have practiced every year, where it prevailed epidemically—during which time I have had four additional attacks, two of which were of a character so grave as to render recovery for a time doubtful. So you will perceive, I have six several times in my own person, and in different seasons, suffered severe and unequivocal attacks of dysentery. Although I have kept no record of the number of cases, yet more than thirty instances of 'recurrence' of dysentery among my neighbors and acquaintances, now occur to my memory, in some of whom the disease has occurred three or four several times. I have recently (Nov. 10, 1853,) attended four members of a family severally afflicted with dysentery, all of whom I treated for the same disease, two years ago, and another member of the same family living in an adjoining county, has had the disease every summer for the last five. Inasmuch as the attack I had in 1847 was worse than the one of the preceding year, I was for a time inclined to the belief, that one occurrence of dysentery might render each succeeding attack worse; but farther acquaintance with the complaint has not confirmed the opinion; but that one attack does not destroy our susceptibility to the 'recurrence' of dysentery, let the foregoing facts declare."

MORBID MATTER IN THE BLOOD.—Mr. HENRY LEE exhibited several preparations illustrative of the influence of vitiated secretions in the blood in the production of fibrinous deposits.

Dr. ROUTH remarked, that experiments with reference to the influence of the injection of vitiated secretions into the circulation had been attended with very contradictory results. In some cases the symptoms and effects produced were similar to those mentioned by Mr. Lee; in other instances no perceptible effect was produced. So in cases of dissection-wound some persons suffered, some did not. This he thought showed that the effects were not attributable merely to the introduction of the morbid matter, but that other causes were in action, such perhaps as some epidemic influence. The persons affected also were in a low state of health. As to the statement that the presence of pus in the blood always produced hectic fever, he could not believe it, and thought that facts were opposed to such a statement.

Mr. HENRY LEE remarked that the occurrence of fibrinous deposits in some of the cases experimented upon proved his case. Rabies was not always the result of innoculation of the poison, but no one presumed therefore to deny the influence of the *morbus materia*.

Dr. MACKENZIE had no hesitation in siding with Mr. Henry Lee on the question of the obstruction of veins by fibrinous deposition from a vitiated condition of the blood. He did not speak specifically of the vitiated condition of the blood from pus, because this, being a fluid which varied very greatly in its properties, would give rise to very different results in different cases. Speaking, however, of vitiation of the blood generally, he could affirm that from this cause alone, arrest, stagnation, and coagulation of blood might take place in the veins, without any primary inflammation of their coats. That some altered state of their lining membrane was induced by the vitiating matter he had no doubt, although it was difficult to define its exact nature, and he believed that in consequence of this alteration, the blood, instead of flowing onwards, was arrested, and coagulated in the veins, upon which arrest and coagulation the general phenomena of phlebitis ensued. —*Lancet.*

LITHOTRITY PERFORMED ON THE SAME PATIENT FORTY-EIGHT TIMES. —Mr. COULSON exhibited the bladder taken from a man aged eighty-three, on whom lithotrity had been performed forty-eight times during twenty years. Whether one or more fragments of the original calculus may have been left in the bladder, and became nuclei of secondary formations, or whether the bladder was at first completely freed, and the relapses depended on the same con-

stitutional disposition which gave rise originally to the deposit of calculous matter from the urine, Mr. Coulson was unable to say. He did not see the case until the middle of last year. It cannot be denied that relapse occurs more frequently after lithotrity than lithotomy. The Norwich tables of Mr. Crosse show twelve cases of relapse after 704 operations of lithotomy, or 1 in 58. From records of operations performed at the Hospital of La Charité, in Paris, between the years 1806 and 1831, it appears that 6 cases of relapse presented themselves after 70 cases of lithotomy, or about 1 in 11. M. Civiale states that the proportion indicated by returns which he received from Bavaria, is 5 in 162 operations (1 in 32); from Bohemia, 1 in 46 operations; from Dalmatia, 1 in 43 operations. At the Luneville Hospital, founded by Stanislaus, King of Poland, for the treatment of calculous disorders, the register shows 13 cases of relapse after 1492 operations of lithotomy, or 1 in 116 cases. The most correct registers are probably those kept at the Norwich and Luneville Hospitals, and from them it appears that relapse occurred after lithotomy once in 58 cases at Norwich, and once in 116 cases at Luneville. For lithotrity there are no other data than those furnished by M. Civiale from his own practice. After 548 operations, relapse followed in fifty-five cases, giving a proportion of nearly 1 in every 10 cases. After lithotrity, every tenth patient may suffer relapse; after lithotomy, the proportion seems reduced to 1 in 60. Mr. Coulson did not think sufficient attention was paid to the condition of the urine after lithotrity, as an indication of the existence of fragments in the bladder. It is not enough that the painful symptoms produced by the stone shall have subsided, and no portion can be detected by the sound or lithotrite. If the urine when first passed is at all turbid, and especially if it contains any exudation corpuscles, first pointed out by Dr. Golding Bird, there can be little doubt that some fragment remains behind. This distinguished physician laid great stress on these bodies, as indicating the presence of stone, and Mr. Coulson knew two cases lately, in which, in consequence of the existence of these corpuscles, persevering efforts were successfully made in search of stone, although on previous examinations none could be detected. Mr. Coulson then gave the following description of these bodies, for which he expressed his obligation to Dr. Golding Bird: "These large organic globules can hardly be distinguished under the microscope from pus globules. They exhibit several nuclei on the addition of acetic acid. To those unacquainted with microscopic observations, the following characters of the urine will afford excellent and safe guides. The urine is pale; looks as if a little gum had been deposited in it, an appearance quite characteristic on agitation. Specific gravity lower than normal; does not coagulate by heat, but on addition of liquor potassæ, in a quantity equal to one-third the bulk of urine in a test tube, the

whole becomes quite transparent, and more or less gelatinous, sometimes so sizy as to be pourod out with great difficulty. The differential diagnosis from purulent urine is the absence of albumen, and from mucous urine its gelatinization with liquor potassæ." To revert to the case now before the Society, the patient, aged eighty-three, on whom lithotrity had been performed, in the last twenty years, forty times, was sent by Mr. Wheeler, of Chelmsford, in May last, to Mr. Coulson, who at eight sittings crushed, without the least difficulty, a large lithic acid calculus, the detritus which came away weighing an ounce. The operations were not attended with any unfavorable symptoms, and on the 9th of June he returned home. Towards the end of the year, symptoms of vesical irritation returned, and Mr. Wheeler again sent the patient to Mr. Coulson, who admitted him on the 26th of November under his care at St. Mary's Hospital. He then complained of frequent desire to pass urine, and pain at the neck of the bladder and in the perinæum after voiding it. The urine contained some mucus, but no pus, blood, or albumen. There was no doubt that either a portion of the original calculus remained, or a new calculus had descended. Four ounces of tepid water having been injected, the lithotrite was introduced, and passed over a calculus on the right side of the bladder, but by no manipulation or change of posture of the patient could the stone be seized between the blades of the lithotrite, or the instrument be passed behind the calculus. The trial was made on two different occasions under chloroform by Mr. Coulson and others. As there were no urgent symptoms, it was determined to wait, but the man became impatient at the delay, and returned home on the 10th of December. He got cold, and died on the 30th of December.—*Lancet.*

Report of Nine Cases of Poisoning by Arsenious Acid.—By R. A. Lewis, M. D., Richmond, Va.—On the 15th of February, 1854, at half past seven o'clock, A. M., I was called to see a family, consisting of nine persons, six adults and three children under ten years of age. Six of the nine were white persons, and three were black. Five of the whites were adults, and one a little girl about five or six years old. One of the blacks was an adult; the other two were children—one eight and the other four years old. All the white persons were females except one—a man about twenty-five years of age. All the blacks were females—the adult a woman about forty years old.

I found these nine persons all laboring under the symptoms of poisoning by some irritant poison. The symptoms were violent, nausea and vomiting, faintness, a sense of constriction and burn-

ing in the throat, great thirst, pain in the stomach and bowels, quick, irregular pulse, and skin rather cooler than natural.

Upon inquiry, I found that there had been a difficulty with the cook, a black woman, about forty, and she had been notified that she would be sent to the public hiring on that day; and she had replied that she would die before she would go.

The whole white family sat down to breakfast, and in a short time some of them became deadly sick, and began to vomit; and in a short time all who had eaten were vomiting; or rather, all who had drank coffee. The cook was called into the house and accused of putting poison in the coffee, which she denied. She was then told, if she had not done so, to drink some of the coffee. She said she was not afraid to do so, and poured out and drank a cupful, and gave some to each of her children.

I poured the liquid out of the coffee-pot in a bowl, and spread the grounds out in a plate, and found white particles through the whole of them. Placing some of them on my watch, I found it was not corrosive sublimate. As arsenious acid is more commonly used as a poison than any other substance, I commenced my treatment upon the supposition that this was the poison used. I immediately sent for hydrated peroxide of iron; or if that could not be had freshly prepared, magnesia ust. While the messenger was gone, I gave my patients freely large draughts of flour and milk, which was ejected almost as soon as swallowed; but was repeated every few minutes, till the messenger to the druggist returned with the magnesia, the hydrated peroxide of iron not being readily prepared. While administering this in large doses, not being weighed or measured, Dr. Power, who had been sent for, came in, and concurring perfectly with me, we continued to give them the magnesia, and the mucilage of sassafras pith for a drink, (which was given *ad libitum*) till about 2 o'clock, P. M. The vomiting still continuing, large quantities of bile, mixed with food, was ejected, mixed with the magnesia and mucilage, and an occasional tinge of blood, and an action on the bowels occasionally in some of the cases.

About 2 o'clock, P. M., we gave each patient a full dose of laudanum in a little olive oil, and repeated it until it was retained. Mustard plasters over the stomach were also applied. The vomiting gradually ceased, the intervals between the paroxysms becoming longer and longer until 10 o'clock at night—most of them dosing—when we left them.

February 16th.—We were told that our patients rested some through the night, occasionally suffering from nausea, and some of them vomiting several times. We found them all complaining of headache, soreness and tenderness over the stomach, great thirst, skin rather warm, and pulse quick and tense in all the cases, ex-

cept the black woman, who had been purged most. Her skin was cooler and pulse weaker than the rest. Other symptoms the same. Directed ice to be eaten freely, and a tablespoonful of ice cream three times a day.

17th.—Patients all better. Treatment and diet the same.

18th.—Patients still better; ask for food; small quantity of mush and milk three times a day, and ice as before.

19th.—Patients all sitting up, but weak, asking for meat, bread, &c., but mush and milk diet was prescribed for a week, and the patients dismissed as convalescent.

I have been informed that the black woman, on the 20th, repeated the dose, from which she died. I was not called to her in the second attack, but on the 19th she was as well as the others, all of whom have recovered. Before her death she confessed that she put a white powder in the coffee.

I took some of the decoction of coffee and some of the grounds home with me, and analyzed them, which gave the following result:—

1st.—The acids and zinc to be used were tested and found to contain no trace of arsenic.

2d.—Some of the grounds were carefully dried and heated in a test tube, with pulverized charcoal, which gave the characteristic metalic ring of metalic arsenic.

3d.—The hydrogen, or Marsh's test, was used, and after the coffee was added to the zinc, acid and water, and the hydrogen lighted, white fumes were emitted, with the characteristic odor of arsenious acid fumes, which, in opposition to authority, I will state is not the odor of garlic exactly, but nearer to that of phosphorus. On applying clear porcelain and glass to the flame, large metalic rings were obtained, so thick that they could readily be scaled off. These exhibited the characteristic metalic lustre and play of colors.

4th.—Some of the scales from the rings obtained by Marsh's process were heated in a tube resolved into arsenious acid, distilled water added, and boiled, and sulphureted hydrogen passed through the solution, which threw down the rich golden precipitate of sulphuret of arsenic or orpiment.

5th.—A solution obtained in the same manner as that which was treated with sulphureted hydrogen, was tested with ammonio-sulphate of copper, when a beautiful rich green precipitate of arsenite of copper was obtained.

6th.—A similar solution being tested with ammonio-nitrate of silver, gave the canary yellow precipitate of arsenite of silver, which changes to a greenish brown when exposed to the light for a short time.

7th.—Reinsch's test was used. Some of the decoction of coffee

was acidulated with hydrochloric acid, boiled, and while boiling, bright slips of copper introduced into the boiling liquid, which were instantly covered with metallic arsenic.

One favorable circumstance in these cases was the large quantity of the poison administered, and on its being taken into the stomach with a quantity of food, the arsenic acted as an emetic in a few minutes, and most of it was ejected, most probably, with the food; but it is rare for so many cases to recover under the most favorable circumstances, and is, I think, an argument in proof of the potency as an antidote of the old remedy, magnesia, when persevered in, and given in large doses.—*Stethoscope.*

Infusoria in Woman's Milk.—By. Dr. Vogel.—No general directions can be given as to whether a woman may suckle or not. In every case the question must be determined by an examination of the milk; and here the microscope proves eminently useful. The author found in that milk which produced sickness in the child, and destroyed the health of the mother after prolonged lactation, immediately after its removal from the breast, infusoria similar to those found in the incrustations upon the teeth (*vibrio bacillus*). Such vibriones are found especially in women who menstruate or suffer from hœmorrhages during this period, the good or bad aspect giving no important indication. The milk has often a fine, thick, white color, or is of paler hue; its consistence may be either thick or watery; its re-action is often alkaline, but generally neutral. Under the microscope it exhibits, according to its richness, sometimes but few, at other times many, milk and cream corpuscles; these differ from the corpuscles of healthy milk by their pale yellow color, their want of metallic lustre, and their speedy decomposition. As regards the infusoria, they are little rod-shaped bodies, dark in the middle, surrounded by a lighter line, but exhibiting neither head nor tail under a magnifying power of 600 diameters; there are, however, feet in great number and of considerable length. The movement of these animalcules was swimming, and occasionally it was very active. Forward movement was worm-like, and an annular stricture of four rings was observed. Mostly they twist screw-like, upon their axes. When they swim in a circle, they always move from right to left. The length is one-hundredth mmtr., their breadth four times less. They are best seen when the milk is diluted with water. In ammonia-diluted acids (even the lactic) they die immediately.

Children fed upon milk containing these infusoria, become sooner or later attacked by diarrhœa, and the evacuations are of a green color. This condition disappears as soon as healthy cow's milk is substituted. The author believes that this effect does not

proceed from the infusoria as such, but from the same cause which produces the infusoria, namely, a process of fermentation in the milk itself. The ferment is, according to him, the congested and increased heat in the breasts, connected with the general excitement of the sexual system.

But a fermentation, as Jul. Clarus observes, cannot be present, because the author always found the milk alkaline or neutral, and never sour. Were there fermentation, the evolution of lactic acid would, upon the author's own showing, have immediately destroyed the infusoria.—*Schmidt's Jahrb.*

THE HEROIC CONDUCT OF THE SURGEON OF THE "TAYLEUR."—Most of our readers have probably read in the newspapers an account of the heroic conduct of Mr. Cunningham, the surgeon of the ship *Tayleur*, recently wrecked on the coast of England. The following just and beautiful tribute to his memory is from the pen of Dickens:—

"When these men perish at their work, they do not die with soldiers' laurels, but their names become connected with their last brave actions, and are told by Englishmen to one another in their households, so that in after years they receive honor by many a fireside. The surgeon of the *Tayleur* was conspicuous in his exertions for the re-assurance and assistance of the shipwrecked passengers. We read at home, how, while struggling across a rope, with his own infant in his hands and teeth, he was plunged into the sea that dashed his child out of his hold; we read that he was seen, then, holding by the ship's side with a drowning woman in his arms, whose hair he was parting gently, and to whom he seemed to be speaking words of comfort. Her, too, the sea forced from his grasp; and we read that he was next seen perishing with his wife, during a vain struggle to save her. The noble man with his little family—his wife and two children—is swept away; he exists now only in the name of ROBERT HANNAY CUNNINGHAM. But these are the men whom we want living among us; these are the energies that we need for the leavening of all society, and for the work of the world. These are not men to be sent out in emigrant ships to the bottom of the sea. Their memory, too, will be best honored if we be indignantly aroused, for their sakes, to amend an evil."—*Lancet.*